AP - 001

2010 AGWMR

04/12/2011

AP-01

HUNTSMAN

Enriching lives through innovation

12 April 2011

Mr. Glenn von Gonten
New Mexico Oil Conservation District
Environmental Bureau
1220 So. St. Francis Dr.
Santa Fe, NM 87505

RE: **Submission of the 2010 Annual Groundwater Report for the Former Brickland Refinery Site**
Sunland Park, New Mexico
Huntsman Corporation
Case No. AP-01

Dear Mr. von Gonten:

Enclosed is a copy of the 2010 Annual Groundwater Report for the Former Brickland Refinery Site. As agreed upon on 11 February 2003, the report was to be submitted on or before 1 April for the previous year. However, due to a lengthened review process this year, the report has been delayed.

Please do not hesitate to contact me at 281-719-3039 any time you have questions or need additional information.

A copy of this report is also being sent to the District 2 office in Artesia.

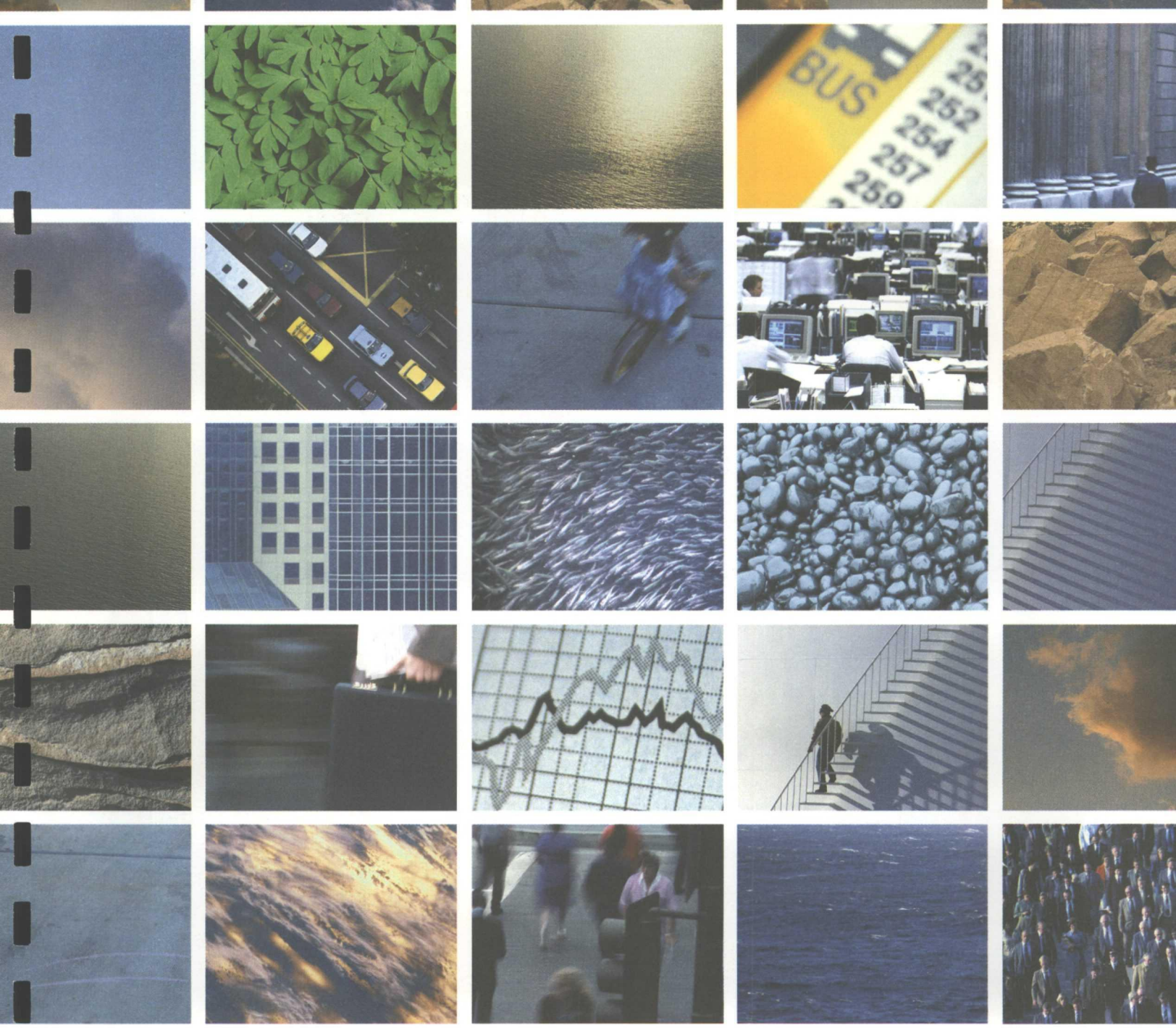
RECEIVED OCD
2011 APR 13 P 12:37

Sincerely,

Edward L. Gunderson
Manager EHS Center of Excellence – Americas
Huntsman International

cc: NMOCD District 2 – Artesia
Ronald Keichline – Huntsman
Lon Tullos – Huntsman EHS Library

cc w/o enclosures:
Brad Stokes – ERM



2010 Annual Groundwater Monitoring Report

Huntsman International, LLC
Former Brickland Refinery

April 12, 2011

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ERM

Huntsman International, LLC

2010 Annual Groundwater Monitoring Report: *Former Brickland Refinery*

April 12, 2011

Project No. 0119078
Sunland Park, New Mexico

Franz K. Hiebert, Ph.D.
Partner-in-Charge

Brad Stokes, P.G.
Project Manager

Environmental Resources Management Southwest, Inc.
206 E. 9th St., Suite 1700
Austin, Texas 78701
T: 512-459-4700
F: 512-459-4711

Texas Registered Engineering Firm F-2393

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EXECUTIVE SUMMARY

This 2010 Annual Groundwater Monitoring Report documents the results of two semi-annual groundwater monitoring operations conducted at the former Brickland Refinery site in Sunland Park, New Mexico. The semi-annual groundwater monitoring operations were conducted in June (June 21 thru June 24) and December (December 7 thru December 8) 2010. The report contains summaries of groundwater elevation and analytical data for the past eight years.

This monitoring program was conducted in accordance with the Groundwater Monitoring Plan included as Section 3.5 of the Stage 2 Abatement Plan approved by Mr. Bill Olson of the New Mexico Oil Conservation Division (NMOCD) in a letter dated December 17, 1998, and revised in 2006. Since 2010 is an even-numbered year, samples were collected from:

- onsite wells (MW-4, MW-7, MW-14, and MW-15),
- the five off-site wells (MW-3S, MW-3D, MW-6S, MW-6D, and MW-9S),
- upstream and downstream in the river, and
- since NAPL has been below detection limits for 2 prior consecutive sampling events, in accordance with the Abatement Plan, on-site monitoring wells MW-5, MW-8, MW-10, MW-11, and MW-17 were added to the monitoring plan and sampled during the June sampling event.

Analytical results report that benzene, toluene, ethylbenzene, and toluene (BTEX) were reported in the samples from MW-5 and MW-8 during the June sampling event. BTEX constituents were not reported in samples from any other wells.

Polynuclear aromatic hydrocarbons (PAH) were reported in samples from MW-5, MW-8, and MW-10 during the June 2010 monitoring event. PAH analysis was not required for the December event.

Lead was not reported in any sample above the detection limit during the June 2010 monitoring event. Lead analysis was not required for the December event.

Light non-aqueous phase liquid (LNAPL) was not detected in the product recovery/monitoring well, MW-10, during the 2009 or 2010 monitoring events. LNAPL was not detected in any well during the 2010 monitoring event. This is attributed to 2009 LNAPL recovery efforts including use of oil-absorbent socks and the use of a vacuum truck to remove LNAPL from wells.

Based on the results of ongoing monitoring, Huntsman recommends the following actions:

- Residual hydrocarbon concentrations in MW-5, MW-8, and MW-10 can be addressed by bioremediation amendments or stimulants. Huntsman will

evaluate the effectiveness of using oxygen-releasing compound socks in select wells to enhance the natural attenuation.

- Sampling should continue in accordance with the Abatement Plan.

1.0 INTRODUCTION

1.1 BACKGROUND

The Brickland Refinery Site is located in Sunland Park, New Mexico and consists of approximately 33 acres situated along the west bank of the Rio Grande (Figure 1). Huntsman International, LLC. (Huntsman) currently owns the site. From 1933 to 1958, the site was operated as a petroleum refinery, producing both gasoline and jet fuel. The site was closed and the plant dismantled in 1958. Between 1964 and 1989, the site was leased to various parties to service trucks, conduct automobile salvage operations, graze livestock and store used bricks. Petroleum hydrocarbons have been reported in soil and groundwater at the site. The distribution of petroleum hydrocarbons was investigated and these investigations provided the basis for the Stage 2 Abatement Plan. The Stage 2 Abatement Plan provides the methods for abating contamination of groundwater and soil in compliance with New Mexico Water Quality Control Commission (NMWQCC) regulations on prevention and abatement of water pollution (20NMAC 6.2, Subpart IV), and New Mexico Oil Conservation Division (NMOCD) requirements to protect public health and the environment with respect to wastes from the refinement of crude oil (s70-2-12.8 (22) NMSA 1978). Huntsman maintained a stand-alone light non-aqueous phase liquid (LNAPL) recovery system on the site as part of the Stage 2 Abatement Plan. The system was installed in December 1998 and is currently shut down because LNAPL is no longer detected in MW-10. The site layout and monitoring well and sampling locations are shown on Figure 2.

1.2 SCOPE OF SERVICES

ERM performed semi-annual groundwater monitoring at the subject site in June and December 2010. The monitoring program was conducted in accordance with the Groundwater Monitoring Plan and Stage 2 Abatement Plan, approved by Mr. Bill Olsen of the NMOCD in his letter dated December 23, 1998. The sampling protocol was modified in 2006 with the modifications implemented during the June 2006 monitoring event. The revised protocol is in general accordance with applicable NMOCD, New Mexico Environment Department (NMED) and Environmental Protection Agency (EPA) regulations, procedures and guidelines. The following items were included in the semi-annual monitoring as required by the Groundwater Monitoring Plan and Stage 2 Abatement Plan and approved by the NMOCD:

- Depth to groundwater measurements were recorded in the ten on-site monitoring wells and eight off-site monitoring wells.
- LNAPL thicknesses were measured, if present, in the 18 monitoring wells and 14 well points, and a summary of the LNAPL thicknesses is included in Table 6.

- Groundwater sampling was conducted in each of the five required off-site monitoring wells (MW-3S, MW-3D, MW-6S, MW-6D, and MW-9S) in June and December. In addition, sampling was conducted in 9 on-site wells (MW-4, MW-5, MW-7, MW-8, MW-10, MW-11, MW-14, MW-15, and MW-17).
- Surface water samples were collected from the Rio Grande during each semi-annual monitoring event for laboratory analytical testing. One sample was collected from the upstream end of the site, north of MW-1, and the other sample was collected from the downstream end of the site, south of MW-9s.
- Analytical testing for the June monitoring event included benzene, toluene, ethylbenzene, and toluene (BTEX), polynuclear aromatic hydrocarbons (PAH), and lead (using US EPA Test Methods 8021B, 8270C, 7470, and 6020, respectively). Samples were analyzed for BTEX only for the December monitoring event.
- Extraction system O&M reports were not prepared because the extraction system was shut down in 2009, due to an absence of LNAPL in the recovery well.

2.0 *GROUNDWATER ELEVATION, HYDRAULIC GRADIENT AND FLOW DIRECTION*

The hydraulic gradient beneath the former Brickland Refinery varies slightly across the site, and in response to river stage. In June 2010 the gradient was approximately 0.001 foot/foot. The groundwater flow direction on the east boundary of the site adjacent to the river is east towards the river, and on the western boundary is slightly west of south, at approximately 185°. The hydraulic gradient in December 2010 was calculated to be approximately 0.001 foot/foot east towards the river, at approximately 95°. Historical groundwater elevations for the monitoring wells are provided in Table 2. Water levels are not listed for the well points because the well points were specifically designed to detect LNAPL product at discrete depth and the screened intervals do not correlate with the monitoring well screens. Groundwater elevation contour maps for the June and December 2010 monitoring events are depicted in Figures 3 and 4, respectively.

Groundwater levels in the monitoring wells are influenced by the stage of the Rio Grande bordering the site. Due to observed seasonal fluctuations in the river, water levels in the monitoring wells may vary as much as two feet over the course of a year. Monitoring over the past 15 years indicates a consistent pattern of higher water elevations in the wells and the river during summer sampling events and lower water elevations during the winter sampling events.

3.0 *LNAPL PRODUCT REMOVAL*

3.1 *LNAPL PRODUCT THICKNESS*

LNAPL product thickness in each monitoring well and well point was measured, if present, with an oil/water interface meter. Figure 5 shows a graph of LNAPL thickness. The historical product thickness measurements for each monitoring point are listed in Table 6. In December, no wells had measureable thickness of LNAPL. DNAPL was indicated in WP-26D, however a subsequent evaluation indicated it was a false positive indication. Another meter did not detect DNAPL and liquids were pumped from the bottom of the well and there was no separate phase.

LNAPL Hydrocarbon Thickness maps were not prepared because an insufficient number of wells contained LNAPL to prepare a useful contour map.

3.2 *REMOVAL AND DISPOSAL OF LNAPL PRODUCT*

A total of approximately 235 gallons of LNAPL product had been removed from recovery well MW-10 since 1998. There was no product removed from MW-10 in 2006, 2007, 2008, 2009 or 2010.

4.0 SAMPLE COLLECTION AND LABORATORY ANALYTICAL TESTING PROCEDURES

4.1 FLUID LEVEL MEASUREMENTS

The ten on-site monitoring wells and eight off-site monitoring wells were probed for the presence of LNAPL using an oil/water interface probe. LNAPL was not detected in the wells to be sampled. The fluid elevations in each well and monitoring point were measured and recorded. The water surface elevations for the two monitoring periods are shown in Table 2.

4.2 DECONTAMINATION

The interface probe was decontaminated prior to each use and between each well to prevent the introduction of external contamination or artifacts into a well. A wash and double-rinse decontamination procedure was used. The procedure consisted of washing the probe with Liquinox, a mild, non- phosphate detergent, then double-rinsing with water.

4.3 CALIBRATION OF THE MULTI-PROBE WATER ANALYZER

The multi-probe analyzer was calibrated prior to use at the former Brickland Refinery site. Each calibration was carried out in accordance with the equipment manufacturer's procedures and recommendations. Date, time, calibration readings, and the method of calibration were recorded on Calibration Logs presented in Appendix A.

4.4 WELL PURGING AND FIELD PARAMETER MEASUREMENTS

The monitoring wells were micropurged prior to sampling. Micropurging consists of removing small volumes of groundwater at very low pumping rates until certain physiochemical field parameters stabilized. Field parameter measurements were recorded while each well was purged through the multi-probe flow cell. The groundwater temperature, pH, specific conductance, dissolved oxygen, redox potential, and turbidity were documented on the Sampling Information Form provided in Appendix A. Micropurging of each well was continued until two consecutive readings for three field parameters (dissolved oxygen, redox potential, and turbidity) stabilized within 10% of one another. When stabilization was achieved, well purging was discontinued and the well sampled. The total volume of water purged prior to sample collection was recorded on the Sampling Information Form. The purged water was containerized for disposal.

Approximately 2 gallons (8 liters) were removed from each well with pumping rates of 0.2 liter per minute. Field data collected during the purging of each well

is provided in Appendix A. Groundwater odor, color, and other physically apparent characteristics were also documented. Monitor well integrity was also documented (see the Sampling Information Forms provided in Appendix A).

Wells just added to the sampling program are not equipped with dedicated pumps, and so these wells were purged with a peristaltic pump. All tubing used with the pump was dedicated, replaced at each well. The other wells are equipped with dedicated pumps, therefore no decontamination was required. Approximately 28 gallons of water were purged from the sampled monitoring wells during the June 2010 monitoring event. Approximately 12 gallons were purged from the sampled wells during the December 2010 monitoring event. The purged water collected during these monitoring events was collected by Viva Environmental for subsequent disposal at an approved facility.

4.5 *GROUNDWATER SAMPLE COLLECTION*

Samples were collected for laboratory analysis in the order of volatilization sensitivity of the analytical parameters, (first, volatile organics; second, polynuclear aromatic hydrocarbons; and third, metals). All samples were properly labeled with the correct sampling location, date, time, and testing requirements written on self-adhering labels provided by the laboratory.

4.5.1 *Volatile Organic Compounds (VOCs)*

The groundwater samples were analyzed by US EPA Method 8021B for the following volatile organic compounds (VOCs): benzene, ethylbenzene, toluene, and total xylenes (BTEX). The VOC sample containers were 40 milliliter (mL) glass vials that contained a premeasured amount of hydrochloric acid (HCl), prepared by the laboratory. The HCl is a preservative, and sample containers for VOCs were not rinsed or allowed to overflow during the collection of samples. Water was collected from the well and slowly poured into the glass vial until a convex meniscus formed above the lip of the bottle. Once capped, the vial was checked for air bubbles (headspace) by turning it upside down, tapping the cap of the inverted bottle, and visually inspecting the bottle contents. No bubbles were observed.

4.5.2 *Polynuclear Aromatic Hydrocarbons*

Wells sampled in the June 2010 monitoring event were analyzed by US EPA Method 8270C for the presence of PAHs. Sample containers for PAH were 1 liter amber glass bottles with no preservative. Water was collected from the well and slowly poured into the sample container until filled to the neck.

4.5.3 *Metals*

Wells sampled in the June 2010 monitoring event were analyzed by US EPA Method 6020 for lead. Sample bottles were 500 mL plastic bottles that contained a pre-measured amount of nitric acid (HNO_3) prepared in the laboratory. The

HNO_3 is a preservative and sample containers for metals were not rinsed before or allowed to overflow during sample collection.

4.6 *SURFACE WATER SAMPLING*

Surface water samples from the Rio Grande were collected for chemical analysis from one location up-river and one location down-river from the former Brickland facility. The samples were subjected to the same group of analytical testing listed previously for the groundwater samples. Surface water grab samples were collected by submerging a decontaminated Teflon® dipper into the river. The dipper was decontaminated between sampling sites with Liquinox, a non-phosphate detergent followed by a double rinse with distilled water. Sampling protocols outlined in the Monitoring and Sampling Protocol was strictly adhered to during the sampling process.

4.7 *FIELD QUALITY ASSURANCE / QUALITY CONTROL*

The Field Quality Assurance/Quality Control (QA/QC) program includes collection of field blanks, equipment blanks, trip blanks, and duplicate samples. Descriptions of the QA/QC samples are presented below.

4.7.1 *Field Blanks*

Field blanks were used to determine potential absorption of volatile organics from the air into the water samples. The blanks for volatile organics were collected by filling one 40 mL glass vial with distilled water. The field blanks were analyzed for BTEX. The field blanks did not detect any BTEX constituents.

4.7.2. *Equipment Blanks*

Equipment blanks were collected on non-dedicated or new sampling equipment. During both the June and December sampling events, equipment blanks were collected on the Teflon® dipper, and the water level indicator. The Teflon® dipper and water level indicator were decontaminated with Liquinox, a non-phosphate detergent followed by a double rinse with distilled water. Immediately following decontamination, the equipment blank was collected by pouring distilled water into the equipment, and then filling one 40 mL, glass vial with the water from the equipment. The equipment blank was analyzed for volatile organic compounds (BTEX).

The equipment blanks did not report any BTEX constituents.

4.7.3. *Trip Blanks*

The trip blank is used to detect and quantify potential organic chemical artifacts occurring in the samples which originate from either the sample containers or the de-ionized water comprising the blank. One bottle set for each ice chest was filled with de-ionized water by the laboratory prior to field mobilization. These bottles were transported to the sampling location and returned to the laboratory in the ice chests used to transport groundwater and surface water samples. The trip blanks were analyzed for the same volatile organic compounds (BTEX) as the groundwater and surface water samples.

The trip blanks did not report any BTEX constituents.

4.7.4. *Duplicate Samples*

One duplicate sample was collected during the monitoring events. The duplicate samples collected during the June and December monitoring events were collected from monitor well MW-6S.

The duplicate sample results were similar to the MW-6S concentrations.

4.8 *SAMPLE SHIPPING AND CHAIN-OF-CUSTODY RECORDS*

The water samples collected during the monitoring events were placed in ice-filled coolers immediately after collection and shipped to ALS Laboratories in Houston, Texas for analysis. In each event, chain-of-custody (COC) forms, documenting sample identification numbers, the required analysis for each sample, collection times, and delivery times to the laboratories were completed for each set of samples. Copies of COC forms are provided in Appendix B.

5.0 GROUNDWATER ANALYTICAL RESULTS

5.1 BENZENE, TOLUENE, ETHYLBENZENE AND TOTAL XYLENES (BTEX)

Historical reported BTEX concentrations for the five off-site monitoring wells (MW-3S, MW-3D, MW-6S, MW-6D, and MW-9S) and nine on-site monitoring wells (MW-4, MW-5, MW-7, MW-8, MW-10, MW-11, MW14, MW-15, and MW-17) are summarized in Table 3. This table lists BTEX concentrations for the period from June 2002 to December 2010. BTEX concentrations for monitoring events prior to June 2002 are included in previously submitted reports.

The analytical results for the 2010 reporting period indicate that BTEX constituents were reported in samples from MW-5, MW-8, and MW-10. These three wells were returned to the sampling program this year in accordance with the Abatement Plan, upon completion of NAPL recovery efforts. Benzene toluene, ethylbenzene, and xylenes all reported in samples from wells MW-5 and MW-8. Xylenes only were reported in the sample from MW-10. Benzene was reported in concentrations above the NMOC standard in samples from wells MW-5 and MW-8. No other BTEX constituents were reported above the standards.

The laboratory reports and Chain-of-Custody (COC) documentation are included in Appendix B.

5.2 POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)

PAHs were reported in samples from MW-5, MW-8, and MW-10 only. Flourene and naphthalene were reported in the sample from MW-5. Acenaphthene, flourene, and naphthalene were reported in the sample from MW-8. Acenaphthene and pyrene were reported in the sample from MW-10. The concentrations reported for these PAHs are not higher than the New Mexico standard for PAHs. The June 2010 monitoring results indicate that river water does not contain PAH constituents. Analytical results for PAHs for the period of December 1993 to December 2010 are listed in Table 4.

5.3 PRIORITY POLLUTANT METALS

On June 19, 2009, NMOCD approved a change to the sampling program for metals, removing all metals from the list of analytes except lead. Groundwater and river water samples were analyzed for lead in July 2010. All results were reported below detection limits.

6.0 *REMEDIATION SYSTEM PERFORMANCE*

The remediation system installed in MW-10 was shut down in June 2008 because LNAPL was no longer present in MW-10.

7.0 *CONCLUSIONS*

The analytical results for this reporting period indicate that benzene, toluene, ethylbenzene, and toluene (BTEX) and certain polynuclear aromatic hydrocarbons (PAHs) were reported in samples collected from three wells. These three wells were returned to the sampling program this year upon completion of NAPL recovery efforts, and in accordance with the Abatement Plan. Groundwater from these wells was expected to have dissolved constituents based on prior sampling in the 1990's. Huntsman expects to implement a plan to address these constituents in 2011.

Aside from these three wells, BTEX and PAHs were not reported in any of the other on-site or off-site wells, or from the river.

Lead concentrations were reported below detection limits in all well samples and the river samples during 2010 sampling.

LNAPL was not detected in any monitoring well or well point during the 2010 monitoring events.

8.0 *RECOMMENDATIONS*

The following recommendations are proposed for the remediation system and monitoring operations at the former Brickland Refinery.

- Residual hydrocarbon concentrations in MW-5, MW-8, and MW-10 can be addressed by bioremediation amendments or stimulants. Huntsman will evaluate the effectiveness of using oxygen-releasing compound socks in select wells to enhance the natural attenuation.
- Sampling should continue in accordance with the Abatement Plan.

Tables

Environmental Resources Management Southwest, Inc.
206 E. 9th St., Suite 1700
Austin, Texas 78701
(512) 459-4700

Table 1
Brickland Refinery
Well Sampling and Purging Methods

Well No.	Sample Date	Purge Method	Sampling Method	Purge Volume	Laboratory Analytes
MW-3S	6/23/2010	Micropurge	Micropurge Bladder Pump	Approximately 2 gallons	BTEX, PAHs, and Lead
	12/7/2010	Micropurge	Micropurge Bladder Pump	Approximately 3 gallons	BTEX only
MW-3D	6/23/2010	Micropurge	Micropurge Bladder Pump	Approximately 2 gallons	BTEX, PAHs, and Lead
	12/7/2010	Micropurge	Micropurge Bladder Pump	Approximately 1.5 gallons	BTEX only
MW-4	6/23/2010	Micropurge	Micropurge Bladder Pump	Approximately 2.75 gallons	BTEX, PAHs, and Lead
MW-5	6/21/2010	Micropurge	Micropurge Peristaltic Pump	Approximately 2 gallons	BTEX, PAHs, and Lead
MW-6S	6/24/2010	Micropurge	Micropurge Bladder Pump	Approximately 2 gallons	BTEX, PAHs, and Lead
	12/8/2010	Micropurge	Micropurge Bladder Pump	Approximately 1.5 gallons	BTEX only
MW-6D	6/24/2010	Micropurge	Micropurge Bladder Pump	Approximately 2 gallons	BTEX, PAHs, and Lead
	12/8/2010	Micropurge	Micropurge Bladder Pump	Approximately 2 gallons	BTEX only
MW-7	6/22/2010	Micropurge	Micropurge Bladder Pump	Approximately 1.5 gallons	BTEX, PAHs, and Lead
MW-8	6/22/2010	Micropurge	Micropurge Peristaltic Pump	Approximately 2 gallons	BTEX, PAHs, and Lead
MW-9S	6/23/2010	Micropurge	Micropurge Bladder Pump	Approximately 3 gallons	BTEX, PAHs, and Lead
	12/8/2010	Micropurge	Micropurge Bladder Pump	Approximately 4 gallons	BTEX only
MW-10	6/24/2010	Micropurge	Micropurge Peristaltic Pump	Approximately 4 gallons	BTEX, PAHs, and Lead
MW-11	6/22/2010	Micropurge	Micropurge Peristaltic Pump	Approximately 2 gallons	BTEX, PAHs, and Lead
MW-14	6/22/2010	Micropurge	Micropurge Bladder Pump	Approximately 3 gallons	BTEX, PAHs, and Lead
MW-15	6/23/2010	Micropurge	Micropurge Bladder Pump	Approximately 3 gallons	BTEX, PAHs, and Lead
MW-17	6/22/2010	Micropurge	Micropurge Peristaltic Pump	Approximately 3 gallons	BTEX, PAHs, and Lead
River Upstream	6/23/2010	NA	Teflon Dipper	NA	BTEX, PAHs, and Lead
	12/7/2010	NA	Teflon Dipper	NA	BTEX only
River Downstream	6/23/2010	NA	Teflon Dipper	NA	BTEX, PAHs, and Lead
	12/7/2010	NA	Teflon Dipper	NA	BTEX only
Total volume purged during semi-annual monitoring event in June 2010:					34 gallons
Total volume purged during annual monitoring event in December 2010:					12 gallons
Total volume purged during semi-annual and annual monitoring events:					46 gallons

NS Not sampled during an odd-numbered year.
NA Not applicable

Table 2
Brickland Refinery
Monitoring Well Groundwater Elevations (Feet, MSL)

Well ID	TOC	6/18/2003	12/16/2003	6/16/2004	12/16/2004	6/15/2005	12/14/2005	6/13/2006	12/14/2006	6/13/2007	12/11/2007	6/25/2008	1/7/2009	6/30/2009	12/9/2009	6/21/2010	12/7/2010
MW-1	3730.57	3725.55	3723.69	3725.56	3723.6	3726.5	3724.01	3725.89	3724.29	3726.74	3724.57	3726.88	3724.4	3726.94	3724.20	3726.79	3724.08
MW-2	Plugged	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/100	Plugged 6/99
MW-3S	3730.00	3724.65	3722.69	3724.61	3722.71	3725.56	3723.1	3725.02	3723.34	3725.82	3723.49	3725.99	3723.53	3725.98	3723.24	3725.88	3723.15
MW-3D	3730.00	3724.57	3722.61	3724.62	3722.64	3725.49	3723.04	3724.96	3723 29	3725.78	3723.57	3725.96	3723.5	3725.92	3723.68	3725.83	3723.07
MW-4	3728.86	3724.87	3722.88	3724.76	3722.96	3725.75	3723.37	3725.21	3723.62	3726.06	3723.77	3726.26	3723.82	3726.22	3723.52	3726.41	3723.41
MW-5	3729.70	3724.91	3722.85	3724.83	3722.98	3725.68	3723.38	3725.15	3723.65	3726.02	3723.84	3726.14	3723.85	3726.21	3723.51	3726.13	3723.54
MW-6S	3730.65	3724.4	3722.38	3724.4	3722.45	3725,21	3722.9	3724.76	3722.99	3725.53	3723.13	3725.7	3723.29	3725.68	3722.99	3725.70	3722.83
MW-6D	3730.62	3724.36	3722.33	3724.38	3722.41	3725.22	3722.86	3724.74	3722.98	3725.58	3723.28	3725.76	3723.25	3725.69	3722.95	3725.62	3722.85
MW-7	3728.96	3724.76	3722.69	3724.75	3722.82	3725.53	3723.24	3725.06	3723.45	3725.92	3723.78	3726.05	3723.64	3726.39	3723.42	3725.99	3723.26
MW-8	3729.22	3724.67	3722.63	3724.62	3722.84	3725.28	3723.25	3724.91	3723.46	3725.53	3723.67	3725.79	3723.62	3725.78	3723.39	3725.53	3723.22
MW-9S	3730.01	3724.04	3722.02	3723.97	3722.18	3724.85	3722.65	3724.39	3722.89	3725.4	3723.17	3725.41	3723.17	3725.41	3722.88	3725.35	3723.23
MW-9D	3730.08	Dry	Dry	Dry	Dry	Dry	Plugged 7/05	Plugged 7/05	Plugged 7/05	Plugged 7/05	Plugged 7/05	Plugged 7/05	Plugged 7/05	Plugged 7/05	Plugged 7/05	Plugged 7/06	Plugged 7/05
MW-10	3732.54	3725.67	3722.31	3724.41	3722.56	3725.24	3723.11	3724.53	3723.29	3725.83	3723.54	3732.54	3723.47	3725.82	3723.22	3725.73	3722.91
MW-11	3731.40	3724.51	3721.17	3724.42	3722.74	3725.24	3723.21	3724.65	3723.43	3725.77	3723.62	3725.74	3723.53	3725.76	3723.30	3725.69	3723.17
MW-12	3730.35	3725.93	3724.09	3725.9	3723.86	3726.74	3724.4	3726.24	3724.66	3727.1	3724.8	3726.95	3724.79	3727.28	3724.49	3727.08	3724.52
MW-13	3732.36	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99	Plugged 6/99
MW-14	3730.46	3725.3	3722.79	3724.81	3722.88	3725.67	3723.3	3725.17	3723.55	3726.03	3723.82	3726.13	3723.77	3726.14	3723.45	3726.06	3723.58
MW-15	3738.62	3724.35	3722.38	3724.28	3722.58	3725.16	3723.04	3724.69	3723.42	3725.75	3723.57	3725.73	3723.58	3725.74	3723.26	3725.62	3723.26
MW-16	3736.78	3724.17	3722.14	3724.13	3722.34	3725	3722.78	3724.48	3723.05	3725.53	3723.29	3725.51	3723.28	3725.51	3722.99	3725.43	3722.78
MW-17	3731.98	3724.67	3722.61	3724.67	3722.71	3725.53	3723.15	3725.06	3723.33	3725.93	3723.63	3726	3723.63	3726.02	3723.28	3726.02	3723.17

Table 3
Brickland Refinery
BTEX Concentrations (µg/L) in Monitoring Wells and River Surface Water Samples
June 2003 through December 2010

Well	Date	Benzene	Toluene	Ethylbenzene	Xylenes
MW-3S	6/19/2003	ND	ND	ND	ND
	12/17/2003	ND	ND	ND	ND
	6/16/2004	ND	ND	ND	ND
	12/16/2004	ND	ND	ND	ND
	6/15/2005	ND	ND	ND	ND
	12/16/2005	ND	ND	ND	ND
	6/15/2006	ND	ND	ND	ND
	12/14/2006	ND	ND	ND	ND
	6/14/2007	ND	ND	ND	ND
	12/17/2007	ND	ND	ND	ND
	6/24/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	71/109	ND	ND	ND	ND
	12/10/2009	ND	ND	ND	ND
	6/23/2010	ND	ND	ND	ND
	12/7/2010	ND	ND	ND	ND
MW-3D	6/19/2003	ND	ND	ND	ND
	12/17/2003	ND, ND	ND, ND	ND, ND	ND, ND
	6/16/2004	ND	ND	ND	ND
	12/16/2004	ND	ND	ND	ND
	6/15/2005	ND	ND	ND	ND
	12/16/2005	ND	ND	ND	ND
	6/15/2006	ND	ND	ND	ND
	12/14/2006	ND	ND	ND	ND
	6/14/2007	ND	ND	ND	ND
	12/17/2007	ND	ND	ND	ND
	6/24/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/1/2009	ND	ND	ND	ND
	12/10/2009	ND	ND	ND	ND
	6/23/2010	ND	ND	ND	ND
	12/7/2010	ND	ND	ND	ND
MW-4	6/28/2002	**100, 87**	ND,ND	ND,ND	ND,ND
	12/6/2002	NS	NS	NS	NS
	6/19/2003	NS	NS	NS	NS
	12/17/2003	NS	NS	NS	NS
	6/16/2004	**45**	ND	ND	ND
	12/16/2004	ND	ND	ND	ND
	6/14/2006	ND	ND	ND	ND
	12/14/2006	ND	ND	ND	ND
	6/14/2007	NS	NS	NS	NS
	12/17/2007	NS	NS	NS	NS
	6/24/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/1/2009	NS	NS	NS	NS
	12/10/2009	NS	NS	NS	NS
	6/22/2010	ND	ND	ND	ND

Table 3
Brickland Refinery
BTEX Concentrations (µg/L) in Monitoring Wells and River Surface Water Samples
June 2003 through December 2010

Well	Date	Benzene	Toluene	Ethylbenzene	Xylenes
MW-5	6/21/2010	**2200**	6.7	3	21
MW-6S	6/19/2003	ND	ND	ND	**8.7**
	12/17/2003	ND	ND	ND	ND
	6/16/2004	ND, ND	ND, ND	ND, ND	ND, ND
	12/16/2004	ND, ND	ND, ND	ND, ND	ND, ND
	6/15/2005	**0.8**	ND	ND	**0.86**
	12/16/2005	ND	ND	ND	ND
	6/15/2006	ND, ND	ND, ND	ND, ND	ND, ND
	12/14/2006	**11 , 6.1**	ND, ND	**7.3** , ND	**1.6**, ND
	6/14/2007	ND, ND	ND, ND	**8.0 , 9.2**	**1.5**, ND
	12/17/2007	ND, ND	ND, ND	**2.2** , ND	ND, ND
	6/25/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/1/2009	**1.7, 1.8**	ND, ND	**4.6, 4.2**	ND, ND
	12/11/2009	ND, ND	ND, ND	ND, ND	ND, ND
	6/24/2010	ND, ND	ND, ND	ND, ND	ND, ND
MW-6D	6/19/2003	ND	ND	ND	ND
	12/17/2003	ND	ND	ND	ND
	6/16/2004	ND	ND	ND	ND
	12/16/2004	ND	ND	ND	ND
	6/15/2005	ND	ND	ND	ND
	12/16/2005	ND	ND	ND	ND
	6/15/2006	ND	ND	ND	ND
	12/14/2006	ND	ND	ND	ND
	6/14/2007	ND	ND	ND	ND
	12/17/2007	ND	ND	ND	ND
	6/25/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/1/2009	ND	ND	ND	ND
	12/11/2009	ND	ND	ND	ND
	6/24/2010	ND	ND	ND	ND
	12/8/2010	ND	ND	ND	ND
MW-7	6/28/2002	ND	ND	ND	ND
	12/6/2002	NS	NS	NS	NS
	6/19/2003	NS	NS	NS	NS
	12/17/2003	NS	NS	NS	NS
	6/16/2004	ND	ND	ND	ND
	12/16/2004	NS	NS	NS	NS
	6/14/2006	ND	ND	ND	ND
	12/14/2006	NS	NS	NS	NS
	6/14/2007	ND	ND	ND	ND
	12/17/2007	NS	NS	NS	NS
	6/24/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/1/2009	NS	NS	NS	NS
	12/10/2009	NS	NS	NS	NS
	6/22/2010	ND	ND	ND	ND

Table 3
Brickland Refinery
BTEX Concentrations (µg/L) in Monitoring Wells and River Surface Water Samples
June 2003 through December 2010

Well	Date	Benzene	Toluene	Ethylbenzene	Xylenes
MW-8	6/22/2010	**6800**	27	23	32
MW-9S	6/19/2003	ND, ND	ND, ND	ND, ND	ND, ND
	12/17/2003	ND	ND	ND	ND
	6/16/2004	ND	ND	ND	ND
	12/16/2004	ND	ND	ND	ND
	6/15/2005	ND	**0.60**	ND	**1.4**
	12/16/2005	ND	ND	ND	ND
	6/15/2006	ND	ND	ND	ND
	12/14/2006	ND	ND	ND	ND
	6/14/2007	ND	ND	ND	ND
	12/17/2007	ND	ND	ND	ND
	6/24/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/2/2009	ND	ND	ND	ND
	12/10/2009	ND	ND	ND	ND
	6/23/2010	ND	ND	ND	ND
	12/8/2010	ND	ND	ND	ND
MW-10	6/24/2010	ND	ND	ND	3.9
MW-11	6/22/2010	ND	ND	ND	ND
MW-14	6/28/2002	**11**	ND	ND	ND
	12/6/2002	NS	NS	NS	NS
	6/19/2003	NS	NS	NS	NS
	12/17/2003	NS	NS	NS	NS
	6/16/2004	**230**	ND	ND	ND
	12/16/2004	NS	NS	NS	NS
	6/14/2006	ND	ND	ND	ND
	12/14/2006	NS	NS	NS	NS
	6/14/2007	NS	NS	NS	NS
	12/17/2007	NS	NS	NS	NS
	6/24/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/1/2009	NS	NS	NS	NS
	12/10/2009	NS	NS	NS	NS
	6/22/2010	ND	ND	ND	ND
MW-15	6/28/2002	ND	ND	ND	ND
	12/6/2002	NS	NS	NS	NS
	6/19/2003	NS	NS	NS	NS
	12/17/2003	NS	NS	NS	NS
	6/16/2004	ND	ND	ND	ND
	12/16/2004	NS	NS	NS	NS
	6/14/2006	ND	ND	ND	ND
	12/14/2006	NS	NS	NS	NS
	6/14/2007	NS	NS	NS	NS
	12/17/2007	NS	NS	NS	NS
	6/24/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/1/2009	NS	NS	NS	NS
	12/10/2009	NS	NS	NS	NS
	6/23/2010	ND	ND	ND	ND
MW-17	6/22/2010	ND	ND	ND	ND

Table 3
Brickland Refinery
BTEX Concentrations (µg/L) in Monitoring Wells and River Surface Water Samples
June 2003 through December 2010

Well	Date	Benzene	Toluene	Ethylbenzene	Xylenes
River Upstream	6/19/2003	ND	ND	ND	ND
	12/17/2003	ND	ND	ND	ND
	6/16/2004	ND	ND	ND	ND
	12/16/2004	ND	ND	ND	ND
	6/15/2005	ND	ND	ND	ND
	12/16/2005	ND	ND	ND	ND
	6/15/2006	ND	ND	ND	ND
	12/14/2006	ND	ND	ND	ND
	6/14/2007	ND	ND	ND	ND
	12/17/2007	ND	ND	ND	ND
	6/24/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/1/2009	ND	ND	ND	ND
	12/10/2009	ND	ND	ND	ND
	6/23/2010	ND	ND	ND	ND
	12/7/2010	ND	ND	ND	ND
River Downstream	6/19/2003	ND	ND	ND	ND
	12/17/2003	ND	ND	ND	ND
	6/16/2004	ND	ND	ND	ND
	12/16/2004	ND	ND	ND	ND
	6/15/2005	ND	ND	ND	ND
	12/16/2005	ND	ND	ND	ND
	6/15/2006	ND	ND	ND	ND
	12/14/2006	ND	ND	ND	ND
	6/14/2007	ND	ND	ND	ND
	12/17/2007	ND	ND	ND	ND
	6/24/2008	ND	ND	ND	ND
	1/8/2009	ND	ND	ND	ND
	7/1/2009	ND	ND	ND	ND
	12/10/2009	ND	ND	ND	ND
	6/23/2010	ND	ND	ND	ND
	12/7/2009	ND	ND	ND	ND
Human Health Limits		10	750	750	620

Notes: ND = Not detected
NS = Not sampled

Table 4
Brickland Refinery
Total PAH Concentrations (µg/L) in the River and Monitoring Wells

Well ID	12/8/1993	3/25/1994	7/12/1994	9/28/1994	12/13/1994	3/28/1995	6/21/1995	9/1/1995	6/21/1996	6/26/1997	6/25/1998	6/3/1999	6/14/2000	7/27/2001	6/27/2002	6/19/2003	6/16/2004	6/15/2005	6/14/2006	6/14/2007	6/25/2008	7/2/2009	7/21/2010
MW-1	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	--	ND	ND	ND	ND	--	--	--	--	--	--	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A
MW-3S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3D	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND,ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4	--	ND, ND	ND	ND	ND	--	--	--	--	--	--	--	ND	ND	ND	--	ND	--	ND	--	ND	ND	ND
MW-5	--	**107**	**117**	**191**	**139**	**117**	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.67**
MW-6S	ND	ND	ND	ND	ND	ND	**15, 10**	ND	ND	ND	ND	**22, 32**	ND	ND	ND,ND	ND	ND,ND	ND	ND,ND	ND,ND	ND, ND	ND, ND	ND
MW-6D	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-7	--	ND	ND	ND	ND	--	--	--	--	--	--	ND,ND	ND,ND	ND	ND	--	ND	--	ND	--	ND	ND	ND
MW-8	--	**250**	**93**	**366**	**236**	**180**	--	**140**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.21**
MW-9S	ND	ND	ND	ND	ND	ND	ND	ND	ND,ND	ND	ND,ND	ND	ND	ND	ND	ND,ND	ND	ND	ND	ND	ND	ND	ND
MW-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.13**
MW-11	--	**29**	ND	**233**	**148**	ND	--	**140**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND
MW-12	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	--	--	--	--	--	--	--	--	--	--	--	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A	P&A
MW-14	--	--	**570**	**40**	ND	ND	**12**	ND	--	--	--	ND	ND	ND,ND	ND	--	ND	--	ND	--	ND	ND	ND
MW-15	--	--	**117**	**126**	**84**	ND	ND	ND	--	--	--	ND	ND	ND	ND	--	ND	--	ND	--	ND	ND	ND
MW-16	--	--	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	--	--	--	**58, 37**	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND
River-Upstream	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
River-Down	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes: ND = Not Detected
"--" = Not Sampled

June 2010 Data Detail

Well	Acenaphthene	Flourene	Naphthalene	Pyrene
MW-5	ND	0.27	0.4	ND
MW-8	0.23	0.28	1.7	ND
MW-10	0.67	ND	ND	0.46

Table 5
Brickland Refinery
Lead Concentrations (mg/L)

Well	6/28/02	6/19/03	6/17/04	6/15/05	6/14/06	6/14/2007	6/25/2008	7/1/2009	6/21/2010
MW-3S	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.002
MW-3D	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.004
MW-4	0.018	ND,ND	*NS	ND	ND	NS	ND	NA	<0.002
MW-5	NS	NS	NS	NS	NS	NS	NS	NS	<0.004
MW-6S	ND	ND	ND,ND	ND	ND,ND	ND,ND	ND	<0.025	<0.002
MW-6D	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.004
MW-7	0.022	ND	*NS	**0.190**	ND	NS	ND	NA	<0.002
MW-8	NS	NS	NS	NS	NS	NS	NS	NS	<0.002
MW-9S	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.002
MW-10	NS	NS	NS	NS	NS	NS	NS	NS	<0.002
MW-11	NS	NS	NS	NS	NS	NS	NS	NS	<0.002
MW-14	0.015	ND	*NS	ND	ND	NS	ND	NA	<0.004
MW-15	0.012	ND	*NS	ND	ND	NS	ND	NA	<0.002
MW-17	NS	NS	NS	NS	NS	NS	NS	NS	<0.002
River Upstream	ND	ND	ND	ND	ND	0.0071	ND	<0.005	<0.0004
River Downstream	ND	ND	ND	ND	ND	0.0057	ND	<0.005	<0.0004

Notes:

mg/L = Milligrams per liter

Concentrations in **shaded boldface** type during the current year indicate levels exceed New Mexico Water Quality Control Commission (NMWQCC) standards

ND = concentration was below laboratory detection limits.

NS (*NS) = sample was not collected/analyzed for this constituent (not collected in odd-numbered years).

Table 6
Brickland Refinery
LNAPL Thickness Measurements (Feet)

Well ID	Jun-03	Dec-03	Jun-04	Dec-04	Jun-05	Dec-05	Jun-06	Dec-06	Jun-07	Dec-07	Jun-08	Jan-09	Jul-09	Dec-09	Jun-10	Dec-10
MW-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-2	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
MW-3S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-3D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-6S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-6D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-9S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-10	0.00	0.13	0.08	0.05	0.10	0.00	Trace	Trace	0.00	Trace	0.00	0.00	0.00	0.00	0.00	0.00
MW-11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-13	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
MW-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MW-17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP-2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP-3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Trace	0.00	0.00	0.00	0.00	0.00
WP-14	Tar	Tar	Tar	Tar	Tar	Tar	Tar	Tar	Tar	Tar	Trace	0.00	0.00	0.00	0.00	0.00
WP-25	Dry	Dry	Dry	Dry	Dry	Dry	0.70	0.52	0.54	0.52	0.45	0.08	0.07	0.00	0.00	0.00
WP-26S	0.35	0.60	0.63	0.66	0.66	0.52	0.58	0.47	0.48	0.35	0.73	0.38	0.25	0.00	0.00	0.00
WP-26D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP-27S	0.01	0.00	0.00	0.00	0.00	0.00	Trace	0.02	0.00	Trace	0.00	0.01	0.00	0.00	0.00	0.00
WP-27D	0.12	0.26	0.06	0.11	0.00	0.04	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
WP-30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP-31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Dry	0.00	Dry	0.00	0.00	0.00	0.00	NM
WP-32	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Trace	Dry	Dry	NM	NM	NM	NM	NM
WP-33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

Tar = Thickness measurement not obtainable because of presence of thick tar-like substance in well point.
A = Plugged and Abandoned
Dry = Monitoring point was dry

Table 7
Brickland Refinery
Background Concentrations and Statisical Limits

Sample Date	Boron	Iron	Manganese
Jun-94	NA	3.89	5.9
Sep-94	NA	5.89	10.8
Dec-94	NA	1.1	6.18
Jan-09	1.2	**0.1**	0.282
Jul-09	0.584	**0.2**	9.31
Jul-09	0.546	9.415	12.0
Aug-09	0.617	3.02	14.9
Sep-09	0.579	1.33	15.3

Statstical Evaluation			
Mean	0.705	3.118	9.334
Standard Deviation	0.278	3.226	5.064
Number	5	8	8
K-statistic	4.202	3.188	3.188
Upper Tolerance Limit	**1.873**	**13.402**	**25.478**

Notes:

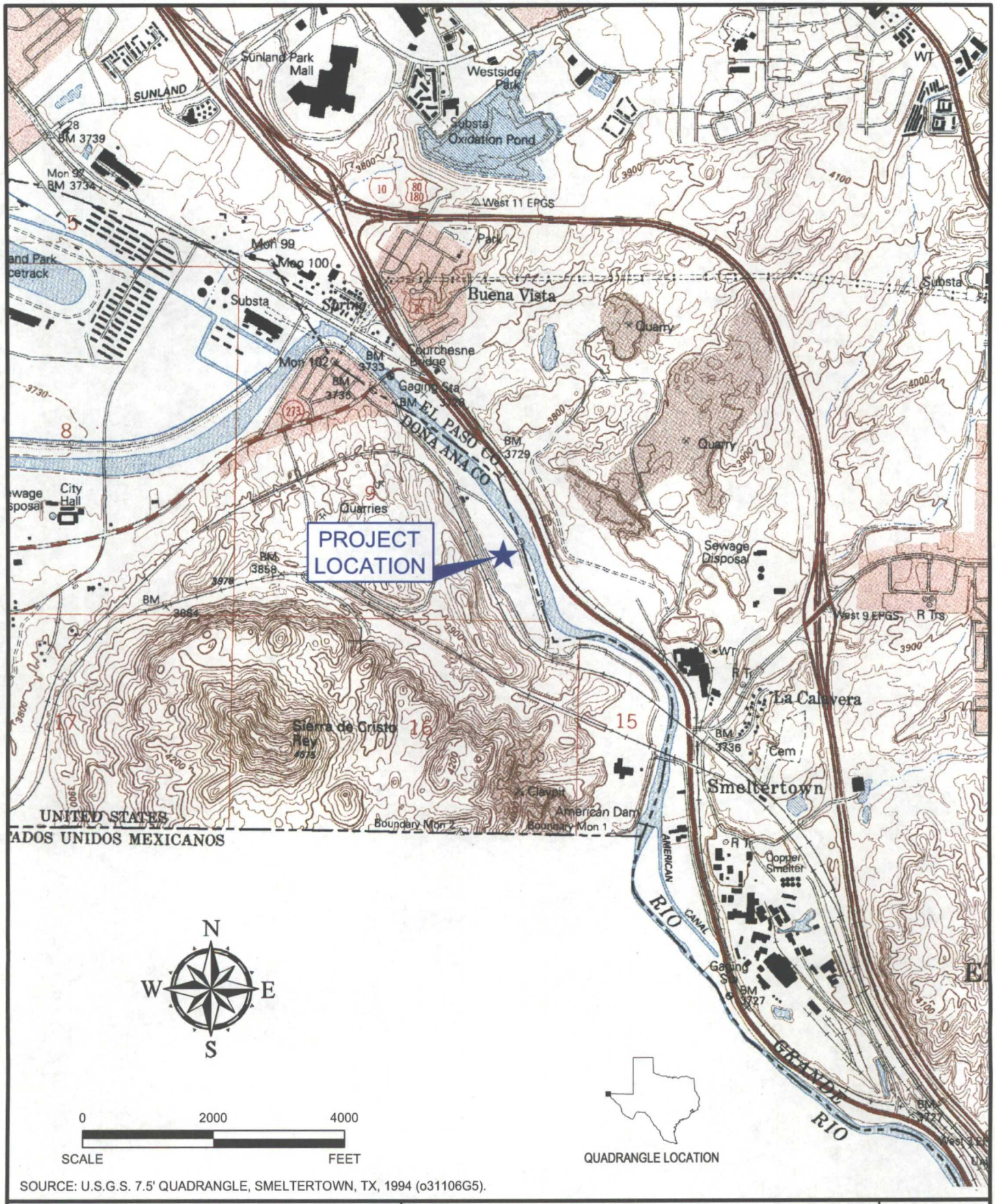
NA - not analyzed

Concentrations reported after Jan 09 are the average of two results

Concentrations reported in red represent 1/2 the detection limit for non-detect results

Figures

Environmental Resources Management Southwest, Inc.
206 E. 9th St., Suite 1700
Austin, Texas 78701
(512) 459-4700



SOURCE: U.S.G.S. 7.5' QUADRANGLE, SMELTERTOWN, TX, 1994 (o31106G5).

Environmental Resources Management

DESIGN: B. Stokes	DRAWN: EFC	CHKD.: B. Stokes
DATE: 2/3/2009	SCALE: AS SHOWN	REV.:
PROJ. NO.: H:\DWG\B09\0085439_site.dwg, 2/3/2009 2:59:51 PM		

FIGURE 1
SITE LOCATION MAP
Brickland Refinery Site
Sunland Park, New Mexico

ERM

N

0 200 400

SCALE FEET

W. Paisano Dr. (Hwy 85)

Rio Grande River

ACCESS ROAD

FORMER BRICKLAND REFINERY SITE

Brickland Rd.

MW-09D
MW-09S
MW-06D
MW-06S
MW-03D
MW-03S
MW-01
MW-02
MW-04
MW-05
MW-07
MW-08
MW-10
MW-11
MW-12
MW-13
MW-14
MW-15
MW-16
MW-17

WP-01 WP-02 WP-03 WP-04 WP-05 WP-06 WP-07 WP-08 WP-09 WP-10 WP-11 WP-12 WP-13 WP-14 WP-15 WP-16 WP-17 WP-18 WP-19 WP-20 WP-21 WP-22 WP-23 WP-24 WP-25 WP-26D WP-26S WP-27D WP-27S WP-28 WP-29 WP-30 WP-31 WP-32 WP-33 WP-34 WP-35 WP-36

LEGEND

WP-16 • WELL POINT

MW-02 ⊕ MONITORING WELL

■ APPROXIMATE RIVER SAMPLING LOCATION

⊏=⊐ CULVERT

—×—×— FENCE

SOURCE: GCL FIGURE 2, FPRDCT2.DWG (9/13/95).

Environmental Resources Management

FIGURE 2
SITE LAYOUT
Former Brickland Refinery
Huntsman Corporation
Sunland Park, New Mexico

DESIGN: B. Stokes	DRAWN: EFC	CHKD.:
DATE: 3/18/2009	SCALE: AS SHOWN	REV.:

W.O.NO.: H:\DWG\C09\0085439a002.dwg, 3/18/2009 7:53:53 AM

ERM

N

0 200 400
SCALE FEET

W. Paisano Dr. (Hwy 85)

Rio Grande River

ACCESS ROAD

FORMER BRICKLAND REFINERY SITE

Brickland Rd.

MW-09S 3725.35
MW-09D Plugged 7/06
MW-06D 3725.62
MW-06S 3725.7
MW-03D 3725.83
MW-03S 3725.88
MW-17 3726.02
MW-15 3725.62
MW-16 3725.43
MW-10 3725.73
MW-07 3725.99
MW-11 3725.69
MW-14 3726.06
MW-08 3725.53
MW-04 3726.41
MW-05 3726.13
MW-01 3726.79
MW-13 Plugged 6/99
MW-02 Plugged 6/99
MW-12 3727.08

WP-01 WP-02 WP-03 WP-04 WP-05 WP-06 WP-07 WP-08 WP-09 WP-10 WP-11 WP-12 WP-13 WP-14 WP-15 WP-16 WP-17 WP-18 WP-19 WP-20 WP-21 WP-22 WP-23 WP-24 WP-25 WP-26D WP-26S WP-27D WP-27S WP-28 WP-29 WP-30 WP-31 WP-32 WP-33 WP-34 WP-35 WP-36

3726.5
3726.0
3727.0

LEGEND

3726.0	POTENTIOMETRIC SURFACE ELEVATION (FEET, MEAN SEA LEVEL) (DASHED WHERE INFERRED)
⇨	DIRECTION OF GROUND WATER FLOW
MW-01 3726.79	MONITORING WELL WITH POTENTIOMETRIC SURFACE ELEVATION (FEET, MEAN SEA LEVEL)
P&A	PLUGGED AND ABANDONED
WP-16	WELL POINT
■	APPROXIMATE RIVER SAMPLING LOCATION
⊏=⊐	CULVERT
—×—×—	FENCE

SOURCE: GCL FIGURE 2, FPRDCT2.DWG (9/13/95).

ERM-Southwest, Inc. TX PE Firm No. 2393

Environmental Resources Management

FIGURE 3
POTENTIOMETRIC SURFACE MAP
JUNE 21, 2010
Former Brickland Refinery
Huntsman Corporation
Sunland Park, New Mexico

DESIGN: B. Stokes	DRAWN: JMH	CHKD.:
DATE: 1/7/2011	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\A11\0119078b201.dwg, 1/7/2011 2:01:34 PM		

ERM

N

0 200 400
SCALE FEET

W. Paisano Dr. (Hwy 85)

Rio Grande River

ACCESS ROAD

FORMER BRICKLAND REFINERY SITE

Brickland Rd.

MW-09D Plugged 7/05
MW-09S 3723.23
WP-27D
WP-27S
MW-15 3723.26
WP-32
MW-06D 3722.85
MW-06S 3722.83
WP-02
WP-01
WP-03
WP-26D
WP-26S
WP-25
WP-07
MW-17 3723.17
3273.0
MW-10 3722.91
MW-16 3722.78
WP-31
WP-10
WP-04
WP-30
MW-03D 3723.07
MW-03S 3723.15
WP-11
MW-07 3723.26
WP-24
WP-35
MW-11 3723.17
WP-09
WP-08
WP-23
WP-33
WP-22
WP-12
WP-05
WP-29
WP-13
MW-14 3723.58
WP-20
WP-21
MW-08 3723.22
WP-06
MW-04 3723.41
WP-34
WP-36
WP-28
WP-14
3723.5
WP-18
WP-19
MW-05 3723.54
WP-17
MW-01 3724.08
MW-13 Plugged 6/99
WP-16
WP-15
MW-02 Plugged 6/99
3724.0
MW-12 3724.52

LEGEND

3723.5	POTENTIOMETRIC SURFACE ELEVATION (FEET, MEAN SEA LEVEL) (DASHED WHERE INFERRED)
⇨	DIRECTION OF GROUND WATER FLOW
MW-01 3724.08	MONITORING WELL WITH POTENTIOMETRIC SURFACE ELEVATION (FEET, MEAN SEA LEVEL)
P&A	PLUGGED AND ABANDONED
WP-16	WELL POINT
■	APPROXIMATE RIVER SAMPLING LOCATION
⊏=⊐	CULVERT
—×—×—	FENCE

SOURCE: GCL FIGURE 2, FPRDCT2.DWG (9/13/95).

ERM-Southwest, Inc. TX PE Firm No. 2393

Environmental Resources Management

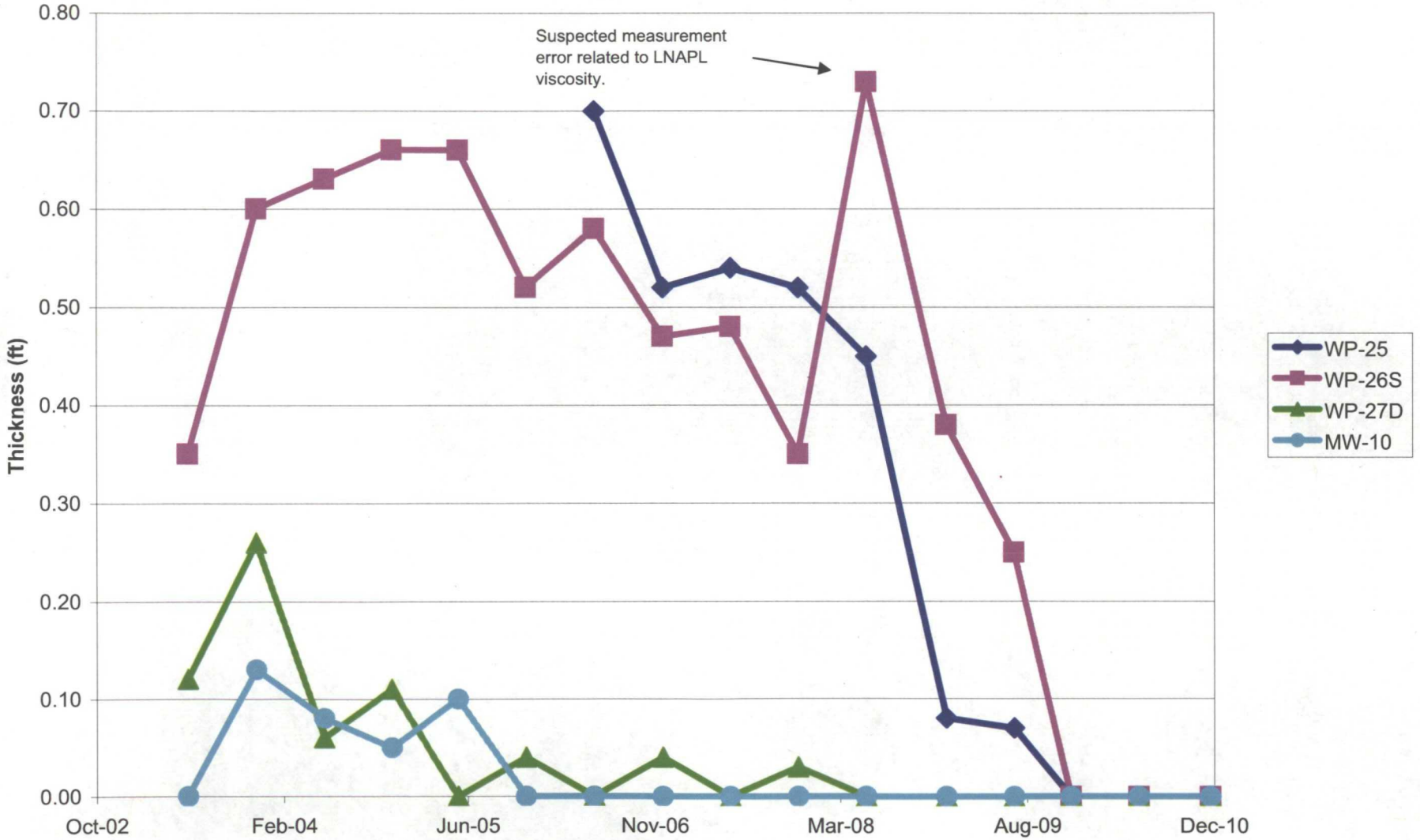
FIGURE 4
POTENTIOMETRIC SURFACE MAP
DECEMBER 7, 2010
Former Brickland Refinery
Huntsman Corporation
Sunland Park, New Mexico

DESIGN: B. Stokes	DRAWN: JMH	CHKD.:
DATE: 1/7/2011	SCALE: AS SHOWN	REV.:

W.O.NO.: H:\DWG\A11\0119078b202.dwg, 1/7/2011 2:03:48 PM

ERM

Figure 5 - LNAPL Thickness



Field Data

Appendix A

April 2011
Hunstman
Project No. 0119078

Environmental Resources Management Southwest, Inc.
206 E. 9th St., Suite 1700
Austin, Texas 78701
(512) 459-4700

DATE	12/7/10
SHEET	1 of 1

FIELD DAILY ACTIVITY LOG

PROJECT NAME:	PROJECT NUMBER:
HUNTSMAN Former BRICKYARD	0119078

FIELD ACTIVITY SUBJECT:
SEMI-ANNUAL GROUNDWATER GAUGING AND SAMPLING

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:
0645 ARRIVE ERM OFFICE - PREP FOR GAUGING/SAMPLING
0700 VIVATECH ON SITE - CALIBRATE PID
- H+S REVIEW, DISCUSSION, FILLOUT + SIGN DAILY FORM
0725 LOAD UP TRUCK - DEPART FOR SITE
0820 ARRIVE ON SITE FORMER BRICKYARD SITE
0830 OPEN ALL WELLS AND CHECK WITH PID:
- GAUGE SAMPLE WELLS, THEN MONITOR WELLS, WITH CLEAN WATER LEVEL PROBE, THEN GAUGE WELL POINTS WITH OIL WATER INTERFACE PROBE
- CAL CK GW SAMPLING EQUIPMENT
1130 BEGIN GW SAMPLING
1645 STOP GW SAMPLING ACTIVITIES FOR TODAY
- CLEAN UP SITE AND WORK AREA
- LOCK ALL WELLS, SAMPLES ON ICE IN COOLER
- ALL WELLS GAUGED
- SECURE AND LOCK COMPOUND AND MAIN GATE
1730 DEPART SITE EOD

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:
NONE	N/A
WEATHER CONDITIONS:	IMPORTANT TELEPHONE CALLS:
CLEAR, SUNNY, COOL TO WARM DRY, WINDY WEST 5-20 MPH, 45-70°F	N/A

PERSONNEL ON SITE:
ERM - RANDOLPH ORTLUND; VIVATECH - HECTOR DIAZ

SIGNATURE
Randolph Ortlund

DATE	12/8/10
SHEET	1 of 1

FIELD DAILY ACTIVITY LOG

PROJECT NAME:	PROJECT NUMBER:
HUNTSMAN - FORMER BRICKYARD	0119078

FIELD ACTIVITY SUBJECT:
SEMI-ANNUAL GROUNDWATER GAUGING AND SAMPLING

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 ARRIVE ERM OFFICE
- PREP FOR GW SAMPLING
- CAL CK PID

0845 VIVATECH ON SITE (DELAYED BY FLAT TIRE)
- HS REVIEW, DISCUSSION, FILL OUT AND SIGN DAILY FORM
- LOAD WATRUCK DEPART FOR SITE

0930 ON SITE FORMER BRICKYARD SITE
- CAL CK GW SAMPLING EQUIPMENT
- OPEN SAMPLING WELLS

1000 CONTINUE GW SAMPLING

1300 GW SAMPLING COMPLETED, SAMPLES ON ICE
- CLEAN UP WORK AREA
- LOCKED ALL WELLS
- SECURE AND LOCKED COMPOUND AND MAIN GATE

1400 DEPART SITE - BACK TO OFFICE
- CLEAN, PACK, SHIP RENTAL EQUIP
- PACK AND SHIP SAMPLE COOLER

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:
NONE	N/A
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
CLEAR, SUNNY, COOL/WARM, DRY, BREEZY SW 5-15 MPH, 50-70°F	N/A

PERSONNEL ON SITE:
ERM - RANDOLPH ORTLUND; VIVATECH - HECTOR DIAZ

SIGNATURE
Randolph Ortlund

(68) 2437

0102010 HUNTSMAN S/A - 6/S 6/24/10 THUR

- BACK TO OFFICE:
- PACK COOLERS - SHIP
- PACK RENTAL EQUIP - SHIP

1630 AJAX RENTAL EQUIPMENT CLEANED / PACKED / PICKED UP BY LONESTAR FOR MONDAY DELIVERY TO HOUSTON OFFICE CALLED AJAX TO STOP RENTAL AND OK TO SHIP GRUNDFOS FOR MONDAY DEL

1730 SAMPLE COOLERS PACKED AND SENT TO FEDEX FOR FRI AM DELIVERY TO ALS IN HOUSTON

- LAB NOTIFIED OF DELIVERY
- COC'S SENT TO BRAD TO CHECK.

1800 CONFIRMED SAMPLE COOLERS (4) DELIVERY DROP OFF AT FEDEX BY VIVA TECH HECTOR

- COPY FIELD NOTES AND SEND TO BRAD
- FOLLOW UP W/LAB ON DELIVERY TOMORROW

Randolph Ortland 6/24/10

(69) 2437

0119078 HUNTSMAN S/A, 6/S 12/7/10 TUE

0645 ARRIVE OFFICE - ERM

0700 HECTOR DIAZ TECH W/VIVA ONSITE

- REVIEW H+S, DAILY H+S BRIEFING FILL OUT AND SIGN DAILY H+S FORM AND PSC CARD

OBJECT: SEMI-ANNUAL GAUGING AND GW SAMPLING

PERSONNEL: ERM RANDY ORTLAND VIVA TECH HECTOR DIAZ

EQUIP: T-84, CELL TOOL KIT, OWIP GW SAMPLING KIT, WL, PID

WEATHER: CLR, SUNNY, COOL/WARM, DRY WINDY W 5-20 MPH, 45-70°F

H+S: REVIEW AND SIGN DAILY FORM

0730 LOAD UP TRUCK - DEPART FOR SITE

0820 ARRIVE ON SITE - HUNTSMAN

- REVIEW H+S ISSUES

0830 OPEN ALL WELLS - CK W/PID

- GAUGE MW's W/CLEAN WL FIRST (SAMPLE WELLS FIRST)
- GAUGE WP's W/OWIP
- DECON PROBES AFTER EACH WELL GAUGED W/ALCONOX AND DI WATER INTO BUCKET TO COLLECT DECON WATER

Randolph Ortland 12/7/10

(70)

0119078 HUNTSMAN S/A - GS 12/7/10 TUE

0900 SET-UP AND CK SAMPLING EQUIPMENT AND CK CAL

+ CK CAL TURBIDITY METER: LAMOTTE 2020e TURBIDIMETER

- STD 0.~~00~~ READING 0.00 NTU
- STD 10.~~00~~ READING 10.17 NTU

+ CK YSI 650 MDS:

- STD PH-7 READ 7.14
- STD PH-10 READ 10.15
- STD COND-1.0 READ 0.805 mS/cm

+ PID OVM TE-580B: ~~CK CAL~~ BHO

- CAL GAS 100 ppmv ISOBUTYLENE
- READING - 100.3 ppmv CALIBRE
- CALIBRATION READING - 100.3 ppmv

1145 EB-2: EQUIPMENT BLANK FOR POLY CUP RIVER SAMPLE BTEX ANALYSIS, ~~HCL~~ HCl, ICE USED DISTILLED WATER

12:00 RIVER-UPSTREAM SAMPLE BTEX ANALYSIS, HCl, ICE

12:30 RIVER-DOWNSTREAM SAMPLE BTEX ANALYSIS, HCl, ICE

1300 COMPOUND AND MAIN GATE LOCKED - BREAK FOR LUNCH

Randolph Arthur 12/7/10

(71)

0119078 HUNTSMAN S/A - GS 12/7/10 TUE

AND PICK-UP N2 BOTTLE FOR SAMPLING - BUILDING COMPLETED FOR MW'S

1430 BACK ON SITE - HUNTSMAN SET UP AND PURGE/SAMPLE MW-35

1500 FB-1 SET OUT @ MW-35 DISTILLED WATER

1505 PURGE AND SAMPLE MW-35

1540 SAMPLE TIME MW-35: BTEX 3x40ml VOA's, HCl, ICE

1555 PURGE AND SAMPLE MW-30

1625 SAMPLE TIME MW-30: BTEX 3x40ml VOA's HCl, ICE

1640 FB-1 CLOSE UP VOA'S BTEX 3x40ml VOA's, HCl, ICE

1645 CLEAN UP AND SECURE SITE

1700 COMPLETED GUAGE-UP's:

- ALL WELLS GAUGED
- ALL WELLS LOCKED

1730 OFF SITE HUNTSMAN:

- COMPOUND GATE AND MAIN GATE LOCKED, SITE SECURED
- BACK OFFICE DROP OFF EQUIP
- FINISH SAMPLING PARAMETERS
- SAMPLES ON ICE

Randolph Arthur 12/7/10

(72) 29.5°F

0119078 HUNTSMAN S/A - 6/5 12/8/10 WED

0700 ARRIVE ERM OFFICE
PREP FOR HUNTSMAN SAMPLING

0730 VIVA TECH, DUE ON SITE @ 0730 DELAYED FLAT TIRE

OBJECT: CONTINUE GW SAMPLING

PERSONNEL: ERM RANDY CRITCHFIELD
VIVA TECH HECTOR DIAZ

EQUIP: T-84 CELL, TOOLKIT, DWSA PID, WL, GW SAMPLE KIT

WEATHER: CLR, SUNNY, COOL/WARM, DRY, SW 5-15 MPH, 50-70°F

H+S: REVIEW AND SIGN DAILY FORM
OFFICE FILLING IT OUT

0845 VIVA TECH HECTOR ON SITE
H+S REVIEW, FILL OUT AND SIGN DAILY FORM
- LOAD UP TRUCK - DEPART FOR HUNTSMAN SITE

0930 ARRIVE ON SITE - HUNTSMAN
- SET UP AT MW-9S
+ CALIBRATE PID: READ 99.1 PPMV 100 PPMV ISOBUTYLENE CALGAS
+ CALIBRATE TURBIDITY METER:
- STD 0 NTU READ 0.07 NTU
- STD 10 NTU READ 10.02 NTU

Randolph Critchfield 12/8/10

(73) 29.5°F

0119078 HUNTSMAN S/A - 6/5 12/8/10 WED

+ CALIBRATE YSI 6560
- STD PH 7 READ 7.08
- STD PH 10 READ 10.05
- COND 1.0 READ 0.765 mS/cm

1010 EB-1 WL PROBE DISTILLED H2O BTEX 3x40ml VOAs, HCl, ICE

1040 PURGE AND SAMPLE MW-9S

1115 SAMPLE TIME MW-9S:
- BTEX 3x40ml VOAs, HCl, ICE

1020 FB-2 SET OUT AT MW-9S
DISTILLED H2O

1130 SET UP: PURGE AND SAMPLE MW-6D

1210 SAMPLE TIME MW-6D:
- BTEX 3x40ml VOAs, HCl, ICE

1220 SET-UP PURGE AND SAMPLE MW-6S, DUP-1, MS, MSD

1245 SAMPLE TIME MW-6S
DUP-1
MW-6S MS/MSD
BTEX 3x40ml VOAs, HCl, ICE

1300 SAMPLING COMPLETED:
CLEAN UP EQUIP, AREA

1330 FB-2 VOA'S CAPPED
BTEX 3x40ml VOAs, HCl, ICE

1400 DEPART SITE:
- COMPOUND LOCKED
- GATE LOCKED

Randolph Critchfield 12/8/10

(74)

0119078 Brunsman S/A - G/S 12/8/10 Wed
- Wells locked/capped
1330 Re-gauged ~~MW~~ P-26D:
May have D-NAPL
See gauge sheet
1405 Site secured:
- Back to office
- Pack and ship samples
- and rental equipment
1500 Equip cleaned, packed and shipped overnight 3pm delivery via Lonestar
- N2 bottle returned to Air Products
- Samples on ice in cooler will ship tomorrow
1530 Back for Viva Tech and me

12/9/10
1000 Samples packed on ice shipment via Lonestar to ALS Lab Fri Dec 10 am delivery
- Field notes and COC copied, scanned, email to Brad

Randolph [signature] 12/9/10

ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Huntsman Brickland	A	BTEX (8021)
Work Order		Project Number	0119078	B	
Company Name	ERM Southwest, Inc.	Bill To Company	ERM Southwest, Inc.	C	
Send Report To	Brad Stokes	Invoice Attn	Brad Stokes	D	
Address	442 Bermuda	Address	442 Bermuda	E	
				F	
City/State/Zip	Corpus Christi, TX 78411	City/State/Zip	Corpus Christi, TX 78411	G	
Phone	(361) 737-9203	Phone	(361) 737-9203	H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-35	12/7/10	1540	WATER	1,8	3	X										
2	FB-1	12/7/10	1500	WATER	1,8	3	X										
3	MW-30	12/7/10	1625	WATER	1,8	3	X										
4	RIVER-UPSTREAM	12/7/10	1200	WATER	1,8	3	X										
5	EB-2	12/7/10	1145	WATER	1,8	3	X										
6	RIVER-DOWNSTREAM	12/7/10	1230	WATER	1,8	3	X										
7	MW-95	12/8/10	1115	WATER	1,8	3	X										
8	EB-1	12/8/10	1010	WATER	1,8	3	X										
9	FB-2	12/8/10	1020	WATER	1,8	3	X										
10	DUP-1	12/8/10	—	WATER	1,8	3	X										

Sampler(s) Please Print & Sign: Ramabai Ortuno / RAMABAI ORTUNO | Shipment Method: FEDEX | Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour | Results Due Date:

Relinquished by: Ramabai Ortuno	Date: 12/9/10	Time: 1000	Received by:	Notes: 10 Day TAT.	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP Checkl
☐ Level III Std QC/Raw Data ☐ TRRP Level I
☐ Level IV SW846/CLP
☐ Other / EDD _____

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Laboratory Group
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Chain of Custody Form

ALS Laboratory Group
3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Huntsman Brickland	A	BTEX (8021)
Work Order		Project Number	0119078	B	
Company Name	ERM Southwest, Inc.	Bill To Company	ERM Southwest, Inc.	C	
Send Report To	Brad Stokes	Invoice Attn	Brad Stokes	D	
Address	442 Bermuda	Address	442 Bermuda	E	
				F	
City/State/Zip	Corpus Christi, TX 78411	City/State/Zip	Corpus Christi, TX 78411	G	
Phone	(361) 737-9203	Phone	(361) 737-9203	H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-6D	12/8/10	1210	WATER	1,8	3	X										
2	MW-6S	12/8/10	1245	WATER	1,8	3	X										
3	MW-6S MS/MSD	12/8/10	1245	WATER	1,8	3	X										
4	TB-1	-	-	WATER	1,8	3	X										
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Kenneth Ortuno / Raquel Ortuno | Shipment Method: LONESTAR EXPRESS

Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other | Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes: 10 Day TAT.
Kenneth Ortuno	12/9/10	1000		
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID / Cooler Temp
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP Check
☐ Level III Std QC/Raw Data ☐ TRRP Level I
☐ Level IV SW846/CLP
☐ Other / EDD

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

LOW FLOW SAMPLING SHEET

Well: MW-35 Date: 12/7/10

Location: HUNTSMAN Samplers: RANDOLPH ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
12/7/10	10:00	6.85	16.50	4	UNK	0.00	0.00	-	-	0.35L/m 15/50@20psi
12/7/10	1452	6.83	-	-	-	0.0	0.0	-	-	DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
12/7/10	1505	Initial	7.00	20.04	8.119	5.96	-52.7	4.07	~~6.83~~	6.91
	1510		7.18	19.61	8.039	2.45	-68.1	6.14	6.94	0.3L/m 15/50@20psi
	1515		7.20	19.34	7.773	1.67	-63.8	5.66	6.80	
	1521		7.21	19.02	7.591	1.44	-63.2	5.77	6.89	
	1526		7.20	19.03	7.647	1.33	-67.0	6.74	6.96	WL INCONSISTENT
	1531		7.20	19.05	7.722	1.20	-72.1	5.24	7.80	
	1536		7.21	19.06	7.824	1.09	-78.1	4.77	7.85	
	1540		7.21	19.05	7.867	1.04	-79.0	3.72	7.88	
				~ 36 GALS PURGED				(12,000ml)		
				DIRT ORGANIC ODOR						
				CLEAR PURGE WATER			SLIGHT YELLOW TINT			

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
12/7/10	1540							MW-35	BTEX	HCl	TCE
12/7/10	1500	1640	FB-1 (DISTILLED WATER) SET UP AT MW-35					FB-1	BTEX	HCl	TCE

LOW FLOW SAMPLING SHEET

Well: MW-3D
Location: HUNTSMAN
Date: 12/7/10
Samplers: RANDOLPH ARTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
12/7/10	10:04	6.93	37.50	4	UNK	0.0	0.0	-	-	0.3 L/m 20/10 @ 20 psi
12/7/10	1555	6.86	-	-	-	0.0	0.0	-	-	DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
12/7/10	1555	Initial	7.07	18.58	11.49	1.55	-38.1	4.09	6.84	0.25ml 15/5 @ 20psi
	1600		7.08	18.30	14.18	0.97	-40.7	7.69	6.85	
	1605		7.12	18.20	14.27	0.74	-52.4	2.57	6.85	
	1611		7.15	18.16	14.28	0.90	-58.2	0.65	6.86	
	1616		7.15	18.18	14.30	0.64	-61.0	0.27	6.86	
	1621		7.15	18.13	14.29	0.62	-62.1	0.20	6.86	
	1625		7.16	18.08	14.27	0.58	-63.4	0.28	6.86	
			~	1.5	GALS	PURGED				
		SLIGHT	DIRT	ORGANIC	ODOR					
			CLEAR	PURGE	WATER	SLIGHT	YELLOW	TINT		

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
12/7/10	1625							MW-3D	BTEX	HCl	ICE

Revised:07/10/2007

ERM-El Paso

RIVER LOW

LOW FLOW SAMPLING SHEET

Well: RIVER-UPSTREAM
Location: HUNTSMAN

Date: 12/7/10
Samplers: RANDOLPH ARZUNA

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
12/7/10	12:00	—	—	—	—	—	—	—	—	POLY CUP RIVER SAMPLER

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
	12:00	Initial	8.04	15.50	1.984	9.61	194.7	14.1	—	JUST BELOW SURFACE
										FACING UPSTREAM
										DOWNSTREAM
			NO ODOR CLEAR RIVER WATER LITTLE SILT/SEDIMENT (ALMOST NONE)							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
12/7/10	12:00					RIVER-UPSTREAM			BTEX	HCl	ICE
12/7/10	11:45		(EB-2 (POLY CUP			RIVER SAMPLER)			BTEX	HCl	ICE

LOW FLOW SAMPLING SHEET

Well: RIVER-DOWNSTREAM
Location: HUNSMAN

Date: 12/7/10
Samplers: RANDOLPH ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
12/7/10	12:30	—	—	—	—	—	—	—	—	POLY CUP RIVER SAMPLER

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
12/7/10	12:30	Initial	8.18	14.57	1.133	9.15	184.4	12.7	—	JUST BELOW SURFACE CUP FACING ~~UPSTREAM~~ DOWNSTREAM
				NO ODOR CLEAR WATER LITTLE SILT/SEDIMENT (ALMOST NONE)						

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
12/7/10	12:30			RIVER-DOWNSTREAM					BTEX	HCl	ICE

LOW FLOW SAMPLING SHEET

Well: MW-9S
Location: HUNTSMAN
Date: 12/8/10
Samplers: RONEOLOFF ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
12/7/10	10:11	6.78	15.50	4	UNK	0.0	0.0	-	-	0.45 L/m 10/5 @ 20psi
12/8/10	1020	7.35	-	-	-	0.0	0.0	-	-	DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
12/8/10	1040	Initial	6.87	19.62	8,835	2.47	140.4	2.28	7.39	0.45 L/m 10/5 @ 20psi
	1045		6.91	20.25	9,130	1.67	66.8	1.25	7.39	
	1050		6.97	20.44	9,316	1.59	3.2	1.69	7.40	
	1056		7.00	20.46	9.540	1.05	-26.0	2.03	7.40	
	1101		7.03	20.51	9,695	0.95	-42.5	1.61	7.40	
	1106		7.06	20.51	9.800	0.85	-59.3	1.51	7.40	
	1112		7.08	20.53	9.919	0.79	-69.6	1.33	7.40	
				~4 GALS PURGED						
				DIRT ORGANIC ODOR						
				CLEAR PURGE WATER - SLIGHT YELLOW TINT						

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
12/8/10	1115							MW-9S	BTEX	HCl	ICE
12/8/10	1010	FB-1	DISTILLED H2O		PROBE			FB-1	BTEX	HCl	ICE
12/8/10	1020	FB-2	DISTILLED H2O		MW-9S			FB-2	BTEX	HCl	ICE
			1330 FB-2 CAPPED								

LOW FLOW SAMPLING SHEET

Well: MW-6D
Location: HUNTSMAN

Date: 12/8/10
Samplers: RANDOLPH ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
12/7/10	10:20	7.77	38.0	4	UNK	0.0	0.0	-	-	0.34/m 10/5@20
12/8/10	1140	7.76	-	-	-	0.00	0.00	-	-	DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
12/8/10	1145	Initial	7.31	19.50	15.66	1.80	41.8	1.53	7.80	0.34/m 10/5@25psi
	1152		7.30	19.69	15.80	1.26	-41.7	-0.21	7.80	
	1157		7.27	19.78	15.80	0.98	-51.1	0.26	7.80	
	1202		7.26	19.69	15.77	0.81	-54.3	-0.16	7.80	
	1207		7.26	19.67	15.73	0.78	-56.2	-0.03	7.80	
				PURGED ~ 2 GALS						
				SLIGHT DIESEL ORGANIC ODOR						
				PURGE WATER CLEAR - SLIGHT YELLOW TINT						

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
12/8/10	1210							MW-6D	BTEX	HCl	ICE

LOW FLOW SAMPLING SHEET

Well: MW-65 Date: 12/8/10

Location: HUNTSMAN Samplers: RANDOLPH ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
12/7/10	10:24	7.82	17.00	4	UNK	1.0	0.0	-	-	0.25 L/m 20/10 @ 20 psi
12/8/10	1217	7.76	-	-	-	0.0	0.0	-	-	DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
12/8/10	1220	Initial	7.26	19.24	10.12	3.32	14	3.30	7.95	0.2 L/m 20/10 @ 25 psi
	1225		7.34	19.88	10.35	1.04	35.6	3.20	8.24	
	1230		7.32	20.05	10.39	0.78	40.7	3.12	8.50	
	1235		7.31	20.18	10.43	0.68	40.1	3.61	8.75	
	1240		7.30	20.15	10.41	0.64	22.7	3.40	9.11	
	1245		7.28	20.09	10.41	0.60	-1.3	3.17	9.40	
									10.17	FINAL LEVEL
				~ 1.5 G PURGED						
				SLIGHT ORGANIC ODOR						
				PURPLE WATER CLEAR DARK YELLOW COLOR						

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
12/8/10	1245							MW-65	BTEX	HCl	ICE
	1245							Dup-1	↓	↓	↓
	1245							MS/MSD	↓	↓	↓

Huntsman Wells Gauging Information (Monitor Wells)

Well ID	Date	Time	PID	Depth to Product (ft)	Depth to Water (ft)	(1) Product Thickness (ft)	River Low Comments
MW-1	12-7-10	10:33	0.0	N/A	6.49	N/A	N/S
MW-2	12-7-10	PLUGGED					P&A 6/99
MW-3S	12-7-10	10:00	0.0	N/A	6.85	N/A	S
MW-3D	12-7-10	10:04	0.0	N/A	6.93	N/A	S
MW-4	12-7-10	10:54	0.0	N/A	5.45	N/A	S
MW-5	12-7-10	10:49	0.3	N/A	6.16	N/A	N/S
MW-6S	12-7-10	10:24	1.0	N/A	7.82	N/A	S
MW-6D	12-7-10	10:20	0.0	N/A	7.77	N/A	S
MW-7	12-7-10	11:14	0.0	N/A	5.70	N/A	S
MW-8	12-7-10	11:29	0.0	N/A	6.00	N/A	N/S
MW-9S	12-7-10	10:11	0.0	N/A	6.78	N/A	S
MW-9D	12-7-10	PLUGGED					P&A 7/05
MW-10		See well point fields form					Sheen recovery well w/pump
MW-11	12-7-10	11:32	0.0	N/A	8.23	N/A	N/S
MW-12	12-7-10	10:42	0.0	N/A	5.83	N/A	N/S

(1) Product Thickness = (depth to water) - (depth to product)
Notes: Water Equals Non Product Liquids; S-well sampled; N/S-well not sampled

Data Collector: _____

Revised: 12/10/2008

Huntsman Wells Gauging Information (Monitor Wells)

Well ID	Date	Time	PID	Depth to Product (ft)	Depth to Water (ft)	(1) Product Thickness (ft)	Comments
MW-13	12-7-10	PLUGGED					P&A 6/99
MW-14	12-7-10	11:22	0.0	N/A	6.88	N/A	S
MW-15	12-7-10	11:40	0.0	N/A	15.58	N/A	S
MW-16	12-7-10	11:47	0.0	N/A	14.00	N/A	N/S
MW-17	12-7-10	11:00	*	N/A	8.81	N/A	N/S

(1) Product Thickness = (depth to water) - (depth to product)
Notes: Water Equals Non Product Liquids; S-well sampled; N/S-well not sampled

Data Collector: _____

Revised: 12/10/2008

Huntsman Wells Gauging Information (Well Points)

RIVER - LOW

Well ID	Date	Time	PID	Depth to Product (ft)	Depth to Water (ft)	(1) Product Thickness (ft)	(2) Well Bailed Yes/No	Comments
WP-1	12-7-10	16:24	3.0	N/A	10.47	N/A	No	
WP-2	12-7-10	16:37	0.0	N/A	8.80	N/A	No	
WP-3	12-7-10	16:41	0.0	N/A	N/A	N/A	No	DRY TD - 7.31
WP-7	12-7-10	1634	0.0	N/A	11.57	N/A	No	
WP-14	12-7-10	1655	0.0	N/A	HD 7.5 ~~5.~~	N/A	No	TAR at bottom of well
WP-25	12-7-10	16:22	0.0	N/A	9.37	N/A	No	
WP-26S	12-7-10	17:09	0.0	N/A	9.42	N/A	No	
WP-26D	12-7-10	1609	0.0	11.28 ~~N/A~~	10.38	~~N/A~~ 0.90	No	Product under water
WP-27S	12-7-10	1627	0.0	N/A	14.03	N/A	No	
WP-27D	12-7-10	1629	0.0	N/A	14.05	N/A	No	
WP-30	12-7-10	1557	0.0	N/A	11.30	N/A	No	
WP-31	12-7-10	CAN	NOT	OPEN	CAP			
WP-32	12-7-10	1631	0.0	N/A	N/A	N/A	No	DRY
WP-33	12-7-10	1551	0.0	N/A	9.57	N/A	No	
MW-10	12-7-10	1711	1.0	N/A	9.03	N/A	No	Recovery well w/pump

(1) Product Thickness = (depth to water) - (depth to product)
(2) See Well Bailing field form
Note: Water Equals Non Product Liquids

Data Collector: _____

Revised: 12/10/2008

Huntsman Wells Gauging Information (Well Points)

Well ID	Date	Time	PID	Depth to Product (ft)	Depth to Water (ft)	(1) Product Thickness (ft)	(2) Well Bailed Yes/No	Comments
WP-1								
WP-2								
WP-3								
WP-7								
WP-14								TAR at bottom of well
WP-25								
WP-26S								
WP-26D	12/8/10	1330	0.0	13.28	10.37	2.91	N	DNAPL ?? TD = 15.85
WP-27S								
WP-27D								
WP-30								
WP-31								
WP-32								DRY
WP-33								
MW-10								Recovery well w/pump

(1) Product Thickness = (depth to water) - (depth to product)
(2) See Well Bailing field form
Note: Water Equals Non Product Liquids

Data Collector: _____

Revised: 12/10/2008

Randy Ortlund

From: Randy Ortlund
Sent: Tuesday, November 02, 2010 9:15 AM
To: Brad Stokes
Subject: Huntsman

December semi-annual sampling event tentatively scheduled for Tue/Wed/Thurs Dec 14/15/16.
It should take 2 days, unless problems or weather conditions (i.e. rain, etc).

Task:
Gauge and sample monitor wells and well points.

Sample 5 wells, 2 river, QA/QC for BTEX only:
MW-3S
MW-3D
MW-6S
MW-6D
MW-9S
River Upstream
River Downstream
EB-1 water level probe
EB-2 river sampler
FB-1 day one
FB-2 Day 2
MS/MSD
FB-1
Dup
3 extras
Total: 17

Please order sample bottles from lab for delivery by Fri Dec 3rd.
I will order equipment rentals.
I am in process of scheduling Viva tech.

Any hits from sampling in June?
Anything else?

Randy

DATE	6/21/10
SHEET	1 of 1

FIELD DAILY ACTIVITY LOG

PROJECT NAME:	PROJECT NUMBER:
HUNTSMAN FORMER BRICKYARD	0102010

FIELD ACTIVITY SUBJECT:
SEMI ANNUAL GAUGING AND SAMPLING

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 ARRIVE ERM OFFICE - CAL PID - PREP FOR GW SAMPLING
0745 VIVA TECH ON SITE
- H+S REVIEW/DISCUSSION/FILL OUT/SIGN FORM
0810 RENTAL GW SAMPLING EQUIPMENT ON SITE
0920 ARRIVE ON SITE - HUNTSMAN
- OPEN ALL WELLS AND CHECK W/PID
- GAUGE SAMPLE WELLS, MONITOR WELLS, WELL POINTS USING WATER LEVEL FOR CLEAN WELLS AND OIL/WATER INTERFACE PROBE FOR WELL POINTS AND MW-10.

1400 FINISHED GAUGING ALL WELLS
- CLOSED/LOCKED WELLS
- BEGIN GW SAMPLING

1600 FINISHED FOR TODAY
- OFFSITE
- MAIN GATE, COMPOUND GATE LOCKED

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:
NONE	N/A
WEATHER CONDITIONS:	IMPORTANT TELEPHONE CALLS:
CLEAR, SUNNY, HOT, LOW HUMIDITY, BREEZY 5-10 MPH, 80-105°F	N/A

PERSONNEL ON SITE:
ERM - RANDOLPH ORTLUND; VIVA TECH HECTOR DIAZ

SIGNATURE
Randolph Ortlund

DATE	6/22/10
SHEET	of

FIELD DAILY ACTIVITY LOG

PROJECT NAME:	PROJECT NUMBER:
HUNTSMAN - FORMER BRICKYARD	0102016

FIELD ACTIVITY SUBJECT:
SEMI - ANNUAL GAUGING AND SAMPLING

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0630 ARRIVE FRM OFFICE
- CALIBRATE PID
0645 VIVA TECH ARRIVE
- H+S REVIEW
0735 ARRIVE ON SITE - HUNTSMAN
- CONTINUE GW SAMPLING ACTIVITIES
1240 BREAK FOR LUNCH - BUY ICE
1330 BACK ON SITE
- CONTINUE GW SAMPLING ACTIVITIES
1700 CLEAN UP WORK AREA
- LOCK COMPOUND, MAIN GATE
- DEPART SITE

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:
NONE	N/A
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
PTLY CLDY, SUNNY, HOT LO-MID HUMIDITY, WINDY SW 5-15 MPH, 80-105°F	N/A

PERSONNEL ON SITE:
ERM - RANDOLPH ORTLUND; VIVA TECH - HECTOR DIAZ

SIGNATURE
Randolph Ortlund

DATE	6/23/10
SHEET	1 of 1

FIELD DAILY ACTIVITY LOG

PROJECT NAME:	PROJECT NUMBER:
HUNTSMAN - FORMER BRICKLAND	0102010

FIELD ACTIVITY SUBJECT:
SEMI - ANNUAL GAUGING AND SAMPLING

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0645 ARRIVE ERM OFFICE
- H+S REVIEW

0810 ARRIVE ON SITE - HUNTSMAN
- CONTINUE GW SAMPLING ACTIVITIES

1250 BREAK FOR LUNCH

1340 BACK ON SITE - CONTINUE GW SAMPLING

1800 DEPART SITE
- COMPOUNDS, MAIN GATE LOCKED

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:
NONE	N/A
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
CLEAR, FEW CLDS, SUNNY, HOT, LOW TO HUMIDITY BREEZY SW 0-10 MPH, 80-105°F	N/A

PERSONNEL ON SITE:
ERM - RANDOLPH ORTLUND; VIVA TECH - HECTOR DIAZ

SIGNATURE
Randolph Ortlund

DATE	6/24/16
SHEET	1 of 1

FIELD DAILY ACTIVITY LOG

PROJECT NAME:	PROJECT NUMBER:
HUNTSMAN-FORMER BRICKYARD	0102010

FIELD ACTIVITY SUBJECT:
SEMI-ANNUAL GW GAUGING AND SAMPLING

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0655 ARRIVE FROM OFFICE
- H+S REVIEW
- CHECK AND REPACK GW SAMPLES

0900 ARRIVE ON SITE - HUNTSMAN
- COMPLETE GW SAMPLING TASKS

1400 COMPLETED FIELD WORK COLLECTION GW SAMPLES
- AREA CLEANED UP, WELLS LOCKED, PURGE AND DECON WATER IN 2x55 GAL DRUMS WITH PPE IN HEAVY DUTY GARBAGE BAGS IN COMPOUND

1415 DEPART SITE
- COMPOUND, MAIN GATES LOCKED, WELLS CAPPED AND LOCKED
- BACK TO OFFICE SHIP SAMPLES/EQUIPMENT

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:
NONE	N/A
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
CLR, SUNNY HOT, MODERATE HUMIDITY, WINDY NE 10-20 MPH, 80-100°F	N/A

PERSONNEL ON SITE:
ERM - RANDOLPH ORTLUND; VIVA TECH-HECTOR DIAZ

SIGNATURE
Randolph Ortlund

Daily Safety Meeting

Date	Meeting Facilitator	Project Name	Project Number
6/21/10	Randy Ortlund	Huntsman	0102010

AWARENESS ISSUES (special EHS concerns, pollution prevention, recent incidents)

S/T/F - uneven ground, mud, slopes, rocks, burrows, loose soil

Driving - Big overview picture, Defensive driving, obey traffic laws, allow adequet distances

VOC's - Upwind, monitor w/OVM, respirator w/ organic cartridges

-NAPL - Nitrile gloves, plastic, spill kit, PPE, Eyewash, buckets w/ lids

-HEAT/UV - Sunscreen, PPE, water, take frequent breaks

-Insects, spiders, wild dogs, snakes - Be aware, watch where stepping

OTHER ISSUES (HASP changes, new JHAs, attendee comments)

HASP REVIEWED

DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES

Semi-annual gaugeand sampling of monitoring wells.

OPPORTUNITIES/SUGGESTIONS FOR IMPROVEMENT

Be aware of for illegal immigrants

PINCH POINTS - GLOVES

LIFTING - POSITION, POSTURE, TECHNIQUE, HELP

HOT SURFACES

ATTENDEES (Print name and initial)

Hector Diaz HD	
RANDOLPH ORTLUND RLO	

Daily Safety Meeting

Date	Meeting Facilitator	Project Name	Project Number
6/22/10	Randy Ortland	Huntsman	0102010

AWARENESS ISSUES (special EHS concerns, pollution prevention, recent incidents)

S/T/F - uneven ground, mud, slopes, rocks, burrows, loose soil
Driving - Big overview picture, Defensive driving, okay traffic laws, allow adequet distances, CLEAN WINDOWS/MIRRORS
VOC's - Upwind, monitor w/OVM, respirator w/organic cartridge
NAPL - Nitrile gloves, plastic, spill kits, PPE, eyewash, bucket w/lids
HEAT/UV - Sunscreen, PPE, water, take frequent breaks,
Insects, spiders, wild dogs, snakes - Be aware, watch where stepping
SNAKES, BURROW HOLES

OTHER ISSUES (HASP changes, new JHAs, attendee comments)

HASP Reviewed

DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES

Semi-annual gauging & sampling of monitoring wells.

OPPORTUNITIES/SUGGESTIONS FOR IMPROVEMENT

Be aware for illegal immigrants + surroundings
PINCH POINTS - GLOVES
LIFTING - POSITION, POSTURE TECHNIQUE, HEAT
HOT SURFACES

ATTENDEES (Print name and initial)

Hector Diaz HD	
Randy Ortland RO	

Daily Safety Meeting

Date	Meeting Facilitator	Project Name	Project Number
10/23/10	Randy Ortland	Huntsman	0102010

AWARENESS ISSUES (special EHS concerns, pollution prevention, recent incidents)

S/T/F - uneven ground, burrows, slopes, loose soil, rocks
Driving - Big overview picture, Obey traffic laws, allow adequat distance, clean windows + mirrors, Defensive driving
VOC's - PPE, Be upwind, monitor w/OVM, respirator with organic cart.
NAPL - Nitrile gloves, PPE, eyewash solutions, spill kits, plastic, buckets w/ lids
HEAT/UV - Sunscreen, drink water, take frequent breaks from sun exposure
Insects, Snakes, spiders, wild dogs, burrow holes - Be aware where stepping

OTHER ISSUES (HASP changes, new JHAs, attendee comments)

HASP Reviewed
Hot surfaces - caution when touching metal objects
Pinch points - gloves

DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES

Semi-annual sampling of monitoring wells

OPPORTUNITIES/SUGGESTIONS FOR IMPROVEMENT

Be aware of illegal immigrants + surrounds.

ATTENDEES (Print name and initial)

Hector Diaz HD	
Randolph Ortland RO	

Daily Safety Meeting

Date	Meeting Facilitator	Project Name	Project Number
6/24/10	Randy Orlund	Huntsman	0102010

AWARENESS ISSUES (special EHS concerns, pollution prevention, recent incidents)

V.OC's - Stay upwind, monitor w/ OVM, PPE ea/ respirator w/ organic cart..
S/T/F - Uneven ground, Burrows, slopes, loose soil, rocks, debris, mud
Driving - Big Overview picture, Obey traffic laws, allow adequet distance, clean windows + mirrors, Defensive driving
Heat/UV - Sunscreen, drink plenty water, take frequent breaks from sun exposure
NAPL - Nitrile gloves, PPE, eyewash solution, spill kits, buckets w/lids, plastic
BE AWARE - Insects, spiders, wild dogs, burrow holes, + snakes

OTHER ISSUES (HASP changes, new JHAs, atteridee comments)

HASP Review

Hot surfaces - Caution when touching/grabbing items shall be hot due to sun exposure use gloves
Punch points - gloves.

DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES

Semi-annual sampling of monitoring wells.

OPPORTUNITIES/SUGGESTIONS FOR IMPROVEMENT

Be aware of surroundings + illegal immigrants.

ATTENDEES (Print name and initial)

Hector Diaz HD	
RANDOLAD ORTLUND RHO	

LOW FLOW SAMPLING SHEET

Well: MW-8 **Date:** 6/22/10
Location: HINGSMAN **Samplers:** RANDOLPH ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	10:56	3.69	14.65	4	UNK	0.0	0.0	—	—	SAMPLE DEPTH ~ 9 ft btoc
6/22/10	0845	3.79								PERISTALTIC PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm) mS/cm	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/22/10	0859	Initial	6.95	23.65	6.702	6.61	-78	0.98	3.93	2.0 P-AMP
	0904		6.97	23.88	6.694	2.19	-89	-0.24	4.13	2.5 L/m <2.0
	0909		6.99	23.82	6.614	1.38	-92	-0.49	4.43	2.5 L/m
	0914		7.01	24.11	6.569	1.16	-87	-0.40	4.80	2.0 L/m 1.5
	0919		7.02	24.64	6.525	0.94	-86	-0.09	5.00	
	0924		7.02	24.60	6.482	0.72	-85	-0.36	5.13	
	0929		7.03	24.85	6.453	0.64	-86	-0.14	5.30	

~2.5 GAL PURGED

ORGANIC ODOR
BLACK FLOATING DEBRIS - ORGANICS?
PURGE WATER CLEAR W/ YELLOW TINT

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/22/10	0930							MW-8	BTEX	HCl	ICE
									PAHs	-	
									LEAD	HNO3	UNFILTERED
~~FB-2~~	8:30	FB-2 SET OUT 8:30 (DISTILLED) - CLOSED 1640							BTEX	HCl	ICE
	8:30	FB-1 WATER LEVEL PROBE - DISTILLED							BTEX	HCl	ICE

LOW FLOW SAMPLING SHEET

Well: MW-11
Location: HUNTSMAN
Date: 6/22/10
Samplers: RANDOLPH CRITTENDEN

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	10:45	5.71	20.29	4	UNK	0.0	0.0	-	-	SAMPLE DEPTH ~ 12 ft bgs
6/22/10	10:05	5.77				0.0				PERISTALTIC PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/22/10	1014	Initial	7.27	24.60	6.541	4.80	-65	2.66	5.95	2.6P-PUMP
	1020		7.24	23.99	6.424	2.26	-77	0.20	6.34	@ 0.2 L/m 1.5
	1025		7.24	23.83	6.394	1.00	-83	-0.20	6.63	
	1030		7.25	23.93	6.390	0.99	-77	~~0.31~~	6.95	CHG BATTERY TURB METER
	1035		7.25	24.04	6.404	0.82	-78	-0.39	7.25	PUMP WILL NOT GO BELOW
	1040		7.25	24.15	6.409	0.63	-85	-0.18	7.39	0.14 m1.5 ON SPEED DIAL
	1045		7.26	24.26	6.414	0.46	-85	-0.39	7.58	
	1050		7.26	24.20	6.410	0.30	-87	-0.21	7.75	
			~ 2.0 GALS PURGED							
			FLOATING DEBRIS - BLACK - ORGANICS?							
			PURGE WATER CLEAR W/ YELLOW TINT							
			ORGANIC ODOR							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/22/10	1050							MW-11	~~BTEX~~	HCl	ICE
									PALS	-	
									LEAD	HNO_3	UNFILTERED

LOW FLOW SAMPLING SHEET

Well: MW-17 Date: 6/22/10

Location: HUNTSMAN Samplers: RANDOLPH CRITTENDEN

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	11:02	5.96	24.75	4	MW	0.0	0.0	—	—	SAMPLE DEPTH ~ 12ft. TOTOC
6/22/10	11:33	6.13				—	—	—	—	PERISTALTIC PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/22/10	11:38	Initial	6.92	25.75	8.858	5.34	59	4.13	6.20	0.2 L/m 2 P-PUMP
	11:43		6.86	25.04	8.702	2.78	-54	0.14	6.19	0.375 L/m 3 P-PUMP
	11:48		6.89	24.16	8.632	1.68	-59	-0.39	6.21	
	11:53		6.91	23.77	8.706	1.55	-65	0.69	6.21	0.45 L/m 4 P-PUMP
	11:58		6.94	23.56	8.911	1.20	-67	-0.31	6.24	
	12:03		6.98	23.36	9.191	0.96	-77	0.83	6.23	
	12:08		7.00	23.06	9.252	0.85	-81	0.22	6.23	
		~2 GALS PURGED								
		DIRT/WET SAND SMELL/CLAY, PURGE WATER CLEAR W/ YELLOW TINT NO DEBRIS IN WATER								

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/22/10	12:10							MW-17	BTEX	HCl	1 G
									PAHS	—	
									LEAD	HNO_3	UNFILTERED

LOW FLOW SAMPLING SHEET

Well: MW-14
Location: HUNTSMAN

Date: 6/22/10
Samplers: RANDOLPH ROBINS

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/22/10	1107	4.40	26.10	4	~~N/A~~	3.0	0.0	-	-	
~~6/22/10~~	1407	4.54			INIR					DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/22/10	1407	Initial	6.84	26.15	18.86	20.74	-45	-1.73	4.56	0.35 L/m @ 20psi
	1412		6.84	25.66	18.66	11.26	-51	-2.50	4.67	0.25 L/min @ 20psi
	1417		6.86	26.01	18.79	6.34	-56	-2.79	4.75	
	1422		6.86	25.86	18.67	3.43	-57	-2.86	4.70	
	1427		6.87	25.48	18.55	2.39	-57	-1.98	4.60	0.35 L/m 10/5 @ 20psi
	1432		6.87	23.92	17.97	1.57	-55	-2.67	4.63	
	1437		6.87	23.81	17.57	0.32	-56	-2.90	4.64	
	1442		6.88	23.46	17.10	0.30	-56	-2.90	4.65	
	1445		6.88	23.60	17.07	0.30	-56		4.65	
		~ 3 GAL PURGED								
		SLIGHT ORG / ORGANIC ODOR PURGE WATER CLEAR								

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/22/10	1445							MW-14	BTEX	HCl	ICE
									PAHs		
									LEAD	HNO_3	UNFILTERED

Revised:07/10/2007

LOW FLOW SAMPLING SHEET

Well: MW-07
Location: HUNTSMAN
Date: 6/22/10
Samplers: RANDOLPH ARGUNS

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	11:20	2.97	15.50	4	UNK	0.0	0.0	—	—	
6/22/10	1532	3.08								DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/22/10	1534	Initial	7.03	22.74	7,050	0.77	-110	7.02	3.88	0.15 L/m
	1540		7.03	26.55	6,718	2.91	-84	1.25	3.36	
	1545		7.02	25.85	6,457	0.29	-67	-1.45	3.82	0.175 L/m @ 20 psi 20/10
	1550		7.03	26.03	6,447	0.23	-65	-1.59	3.93	
	1555		7.03	25.65	6,461	0.16	-63	0.42	4.08	
	1600		7.03	25.16	6,516	0.17	-65	-1.78	4.08	
	1605		7.03	25.55	6,666	0.16	-69	-2.08	4.15	
			~1.5 GAL PURGED							
			DIRT/ORGANIC ODOR							
			CLEAR PEARL WATER W/ SLIGHT YELLOW TINT							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/22/10	1605							MW-7	BTEX	HCl	ICE
									PAH		
									Lead	HNO_3	UNFILTERED

LOW FLOW SAMPLING SHEET

Well: MW-04
Location: HUNTSMAN
Date: 6/23/10
Samplers: RANDOLPH CROTLANS

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	11:11	2.75	18.00	4	UNK	0.0	0.0	–	–	
6/23/10	09:07	2.82								OFF, CAPPED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/23/10	0910	Initial	6.93	25.56	13.87	2.71	-36	-1.69	2.93	0.20 L/m 2s/10
	0916		6.95	24.73	13.62	2.93	-44	-2.28	2.96	0.24 L/m
	0920		6.96	23.96	13.45	1.64	-44	-2.47	3.04	0.35 L/m 10/5
	0926		6.97	23.24	13.22	1.15	-45	-2.76	3.04	
	0931		6.97	23.08	13.21	1.00	-49	-2.43	3.06	
	0936		6.97	23.14	13.23	0.85	-52	-2.73	3.05	
	0941		6.98	22.73	13.19	0.77	-55	-2.63	3.05	
	~~0945~~									
			~2.75 GALS PURGED							
			DIRT/ORGANIC ODOR							
			PURGE WATER CLEAR W/ SLIGHT YELLOW TINT							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/23/10	0945							MW-4	BTEX	HCl	ICE
									~~PAHs~~	–	
									LEAD	HNO_3	UNFILTERED
6/23/10	~~0930~~ 1730	Set out time (distilled H_2O) stored						FB-3	BTEX	HCl	

Revised:07/10/2007

ERM-El Paso

LOW FLOW SAMPLING SHEET

Well: MW-15
Location: HUNTSMAN

Date: 6/23/10
Samplers: RANDOLPH ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	10:03	13.00	35.20	4	~~N/A~~	0.0	0.0	–	–	
6/23/10	10:32	13.05			UNK					DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/23/10	10:35	Initial	7.20	35.71	10.32	2.43	-42	4.98	13.11	0.35 L/m 10/50 20#
	10:42		7.22	32.14	10.71	2.30	-120	0.99	13.14	0.35 L/m
	10:47		7.20	31.34	10.52	1.71	-110	0.16	13.14	
	10:52		7.18	32.69	10.79	1.30	-99	-0.11	13.15	
	10:57		7.14	31.45	10.52	1.09	-104	-1.96	13.15	
	11:02		7.14	31.73	10.41	0.93	-104	-2.14	–	
	11:07		7.15	31.66	9.888	0.79	-99	-1.98	–	
			PURGED ~3 GALS							
			DIRT/ORGANIC ODOR							
			CLEAR PURGE WATER/SLIGHT YELLOW TINT							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/23/10	11:10							MW-15	BTEX	HCl	ICE
									PAHs	–	
									LEAD	HNO_3	UNFILTERED

Revised:07/10/2007

LOW FLOW SAMPLING SHEET

Well: MW-95
Location: HUNTSMAN
Date: 6/23/10
Samplers: RANDOLPH ORTMANN

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	11:35	4.66	15.50	4	UNK	0.0	0.0	—	—	
6/23/10	11:54	4.74								MEDICATED PUMPS

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/23/10	11:55	Initial	7.34	27.55	12.20	2.24	-88	5.73	4.74	/4.80 0.2L/m 20/10@10ps
	12:00		7.19	24.35	12.54	2.76	-111	2.85	4.78	~~0.2L/m~~ 0.2L/m
	12:05		7.18	22.23	11.96	2.42	-113	3.83	4.80	0.45L/m 10/5
	12:10		7.19	22.01	11.72	2.75	-113	2.68	4.80	
	12:15		7.20	21.95	11.52	0.90	-113	0.82	4.80	
	12:20		7.21	21.86	11.39	0.91	-113	0.22	4.80	
	12:25		7.22	22.05	11.33	0.76	-114	0.56	4.80	
			~3 GALS PURGED							
			DIRT/ORGANIC CAKE							
			CLEAR PURGE WATER/SLIGHT YELLOW TINT							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/23/10	12:25							MW-95	BTEX	HCl	ICE
									PAHs	—	
									LEAD	HNO_3	UNFILTERED

LOW FLOW SAMPLING SHEET

Well: MW-3D
Location: HUNTSMAN

Date: 6/23/10
Samplers: RANDOLPH ARTUNG

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	11:46	4.17	37.50	4	~~NA~~	0.3	0.0	–	–	
6/23/10	1405	4.18			UNK	–	–	–	–	DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/23/10	1412	Initial	6.77	25.59	18.37	2.27	-32	47.14	4.21	0.3L/m 0.2L/m 20/100 20/
	1417		6.81	24.18	17.83	2.86	6	4.65	4.21	
	1422		6.83	24.33	17.89	0.68	-17	1.21	4.21	
	1427		6.86	24.62	18.04	0.79	-32	-0.14	4.21	
	1432		6.84	23.58	17.74	1.70	-36	-1.15	4.22	
	1437		6.86	23.97	17.73	1.79	-40	-0.83	4.21	
	1440		6.87	23.92	17.72	1.74	-41	-1.95	4.21	
			~2 GALS PURGED							
			DIRTY/WET SAND OVER							
			CLEAR PURGE WATER / SLIGHT MILKY COLOR							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/23/10	1440							MW-3D	BTEX	HCL	ICE
									~~PAHs~~	–	
									LEAD	HNO_3	UNFILTERED

Revised:07/10/2007

LOW FLOW SAMPLING SHEET

Well: MW-35
Location: HUNTSMAN
Date: 6/23/10
Samplers: RANDOLPH ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/22/10	11:47	4.12	16.50	4	UNK	0.3	0.0	-	-	0.2-0.3 L/m
6/23/10	1500	4.19				-	-	-	-	DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/23/10	1505	Initial	7.13	20.24	12.13	3.23	-30	-1.49	4.50	0.45 L/m ~~25~~ ~~10~~ 5 @ 20 psi
	1510		6.86	21.55	10.52	2.27	-67	-2.56	4.86	10/5
	1515		6.85	21.57	10.42	1.75	-71	-2.77	5.25	0.25 L/m 20/10
	1520		6.92	23.03	10.71	0.79	-72	-0.96	5.20	0.35 L/m 15/5
	1525		6.94	22.30	10.51	0.55	-72	-1.07	5.21	
	1530		7.01	22.52	10.55	0.56	-74	-2.43	5.22	
	1535		7.02	22.10	10.43	0.73	-74	-1.93	5.21	
				~2	GALS	PURGED				
			DIRT/SAND OVER							
			CLEAR TURBID WATER/SLIGHTLY YELLOW ORG							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/23/10	1540							MW-35	BTEX	HCl	ICE
									PAHs	-	
									LEAD	HNO_3	UNFILTERED
6/23/10	1610	EB-2 (DEIONIZED WATER) RINSE							BTEX	HCl	

SAMPLER

Revised:07/10/2007

LOW FLOW SAMPLING SHEET

Well: RIVER UPSTREAM
Location: HUNTSMAN

Date: 6/23/10 RIVER FULL HIGH
Samplers: RANDALL ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
										RIVER SAMPLER POLY DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/23/10	1630	Initial	8.53	29.72	0.917	23.72	46.0	411.1		JUST BELOW SURFACE
			NO ODOR							
			RIVER WATER - FINE SEDIMENT - MURKY SILTY							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/23/10	1630					RIVER-UPSTREAM			BTEX	HCl	ICE
									PAHs	-	
									LEAD	HNO_3	UNFILTERED

Revised:07/10/2007

RIVER FINE HIGH

LOW FLOW SAMPLING SHEET

Well: RIVER-DOWNSTREAM
Location: HUNTSMAN

Date: 6/23/10
Samplers: RANDOLPH ORTEGA

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/23/10										RIVER SAMPLER POLY

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/23/10	1700	Initial	5.29	29.82	0.929	1.96	72	40.3	—	JUST BELOW SURFACE
			NO ODOR							
			RIVER WATER - MURKY - SLIGHT PINK SEDIMENT							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/23/10	1700				RIVER-DOWNSTREAM				BTEX	HCl	ice
									PAHs	—	
									LEAD	HNO_3	UNFILTERED

Revised:07/10/2007

LOW FLOW SAMPLING SHEET

Well: MW-5
Location: HUNTSMAN

Date: 6/21/10
Samplers: RANDOLPH ORTUNO

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	11:23	3.57	15.00	4"	UNK	0.0	0.0	-	-	SAMPLE DEPTH ~ 9ft bTOC PERISTALTIC PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/21/10	1359	Initial	6.23	28.17	19.32	1.46	-35.1	1.31	4.25	0.3 L/m
	1406		6.22	27.06	18.82	-2.54	-32.6	1.23	4.75	0.25 L/m
	1412		6.21	27.79	19.04	-1.59	-62.4	0.84	5.00	0.2 L/m
	1417		6.22	27.81	19.00	-1.54	-79.1	0.31	5.10	0.175 L/m 1.75 on PP
	1422		6.21	28.61	19.21	-1.64	-137.9	2.47	5.15	0.2 L/m 2.0 on PP
	1427		6.21	28.96	19.30	-1.78	-195	3.67	5.20	
	1432		6.19	29.14	19.31	-1.78	-224	2.97	5.25	
	1437		6.15	28.53	19.12	-1.86	-348	3.58	5.30	-
	1442		6.13	28.58	19.09	-1.33	-280	3.28	5.35	
	1445		6.10	28.46	19.02	-1.21	-300	2.31	5.40	
				~2 GALS PURGED						
			BLACK ORGANIC TYPE MATERIAL FLOATING ON PURGE WATER							
~3.5 GALS		PURGE WATER CLEAR W/ CHARCOAL GREY TINT								
			ORGANIC ODOR - HYDROCARBON LIKE ODOR - SLIGHT							

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/21/10	1446							MW-5	BTEX	HCl	ICE
									PB12	-	
								UNFILTERED	LEAD	HNO_3	UNFILTERED
6/21/10	1315	SET OUT	1315	SPIKED		1530		FB-1	BTEX	HCl	ICE
				DISTILLED H_2O							

LOW FLOW SAMPLING SHEET

Well: MW-6D
Location: HUNTSMAN
Date: 6/24/10
Samplers: RANDOLPH CASTLEMAN

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	11:41	5.00	38.0	4	~~N/A~~	0.0	0.0	–	–	
6/24/10	0954	5.06			UNK					DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/24/10	0956	Initial	7.04	26.98	19.87	2.85	-93	2.92	5.07	0.2L/m 20/10@20
	1005		7.18	24.35	18.67	2.37	-58	-1.77	5.07	0.3L/m 10/5@20
	1010		7.20	24.03	18.54	1.76	-5	-2.23	5.07	
	1015		7.21	24.10	18.61	1.18	-4	-1.80	5.07	
	1020		7.22	24.07	18.60	1.06	-14	-2.55	5.07	
	1025		7.23	24.35	18.67	1.07	-18	-2.66	5.08	
	1030		7.23	24.26	18.64	0.94	-22	-2.81	5.08	
				~2 GALS PURGED						
				Diesel/organic odor, purge water clear/slight yellow tint						

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/24/10	1035							MW-6D	BTEX	HCl	ice
									PAHs	–	
									LEAD	HNO_3	~~UNFILTERED~~
6/24/10	0930	FB-4	SET OUT (DISTILLED H_2O)					FB-4	BTEX	ice	

Revised:07/10/2007

LOW FLOW SAMPLING SHEET

Well: MW-65
Location: HUNTSMAN

Date: 6/24/10
Samplers: RANDOLPH ORTLUND

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	11:40	4.98	17.00	4	~~N/A~~	0.0	0.0	—	—	
6/24/10	11:00	5.07			UNK	—	—	—	—	DEDICATED PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/24/10	1102	Initial	7.25	25.32	13.40	2.61	-72	-1.46	5.30	0.1 L/m 25/5 @ 10
	1107		7.17	23.79	12.29	2.49	-104	-1.67	5.56	0.3L/m 10/5 @ 20
	1112		7.15	26.14	12.71	1.35	-121	-1.79	5.84	0.25L/m 20/10 @ 20/5
	1119		7.15	26.30	12.71	1.42	-126	-1.78	6.15	
	1124		7.13	26.42	12.73	1.46	-126	-1.31	6.28	
	1129		7.12	26.72	12.78	1.41	-129	-1.48	6.41	
									6.55	
	1200								7.45	DTW END OF SAMPLING
			~ 2 GALS PURGED							
			ORGANIC ODOR							
		CLEAR YELLOWISH PURGE WATER (DARK YELLOW COLOR)								

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/ cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/24/10	1130							MW-65	BTEX	HCl	ICE
	1200	DUP-1	TIME	ON COC				DUP-1	BTEX	—	
								MS/MSD	LEAD	HNO_3	UNFILTERED

Revised:07/10/2007

Well: MW-10 (formerly AR20 WELL)
Location: HUNTSMAN

LOW FLOW SAMPLING SHEET
Date: 6/24/10
Samplers: RANDALL CROZIER

Well Information

Date	Time	DTW (ft-toc)	Well TD (ft-toc)	Well Dia (in)	Screened Interval	PID Well (ppmv)	PID BZ Zone (ppmv)	LNAPL (ft)	DNAPL (ft)	Comments
6/21/10	1037	6.81	~~9.89~~		UNK	1.0	0.0	-	-	SAMPLE DEPTH @ 13 ft bgs
6/24/10	1227	6.90				-	-	-	-	PERISTALTIC PUMP

Well Purging Record

Date	Time	Cum Vol Purged (L)	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	DTW (ft-toc)	Comments
6/24/10	1240	Initial	7.18	26.22	8,151	2.18	-63	-0.44	7.06	0.3L/m 4 P/P
	1245		7.10	25.26	7,867	1.90	-92	-0.85	-	
	1251		7.10	25.15	7,783	1.54	-110	-0.86	-	
	1256		7.10	25.14	7,800	1.37	-119	-1.09	7.11	
1300	~~1260~~		7.10	25.24	8,068	1.23	-111	-1.14	-	
	1305		7.10	25.29	8,384	1.13	-93	-1.22	-	
	1310		7.10	25.54	8,453	1.08	-86	-1.38		
				~46 GALS PURGED						
				SLIGHT HYDROCARBON ODOR						
				OIL SHEEN ON PURGE WATER + CLEAR WITH BLACK SUSPENDED PARTICLES - ORGANICS?						

Sampling Record

Date	Time	pH (std units)	Temp (c)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)	Turbidity (NTU)	Sample ID	Analysis	Preserv	Comments
6/24/10	1310							MW-10	BTEX	HCl	ICE
									PAHs	-	
									LEAD	HNO_3	UNFILTERED

Huntsman Wells Gauging Information (Monitor Wells)

Well ID	Date	Time	PID	Depth to Product (ft)	Depth to Water (ft)	(1) Product Thickness (ft)	Comments
MW-1	6-21-10	11:50	0.0	N/A	3.78	N/A	N/S
MW-2	PLUGGED						P&A 6/99
MW-3S	6-21-10	11:47	0.3	N/A	4.12	N/A	S
MW-3D	6-21-10	11:46	0.3	N/A	4.17	N/A	S
MW-4	6-21-10	11:11	0.0	N/A	2.73	N/A	S
* MW-5	6-21-10	11:23	0.0	N/A	3.57	N/A	N/S TD = 15.00
MW-6S	6-21-10	11:40	0.0	N/A	4.95	N/A	S
MW-6D	6-21-10	11:41	0.0	N/A	5.00	N/A	S
MW-7	6-21-10	11:20	0.0	N/A	3.47	N/A	S
* MW-8	6-21-10	10:56	0.0	N/A	3.69	N/A	N/S TD = 14.65
MW-9S	6-21-10	11:35	0.0	N/A	4.66	N/A	S
MW-9D	PLUGGED						P&A 7/05
* MW-10	6-21-10	10:37	1.0				Sheen recovery well w/pump
* MW-11	6-21-10	10:15	0.0	N/A	5.71	N/A	N/S TD 20.29
MW-12	6-21-10	11:56	0.3	N/A	3.27	N/A	N/S

(1) Product Thickness = (depth to water) - (depth to product)
Notes: Water Equals Non Product Liquids; S-well sampled; N/S-well not sampled

* TD

Data Collector: 6/21/10

Revised: 12/10/2008

Huntsman Wells Gauging Information (Monitor Wells)

Well ID	Date	Time	PID	Depth to Product (ft)	Depth to Water (ft)	(1) Product Thickness (ft)	Comments
MW-13	6-21-10	PLUGGED					P&A 6/99
MW-14	6-21-10	11:07	3.0	N/A	4.40	N/A	S
MW-15	6-21-10	10:03	0.0	N/A	13.00	N/A	S
MW-16	6-21-10	10:08	0.0	N/A	11.35	N/A	N/S
• MW-17	6-21-10	11.02	0.0	N/A	5.96	N/A	N/S TD=24.75

(1) Product Thickness = (depth to water) - (depth to product)
Notes: Water Equals Non Product Liquids; S-well sampled; N/S-well not sampled

Data Collector: [signature] 6/21/10

Revised: 12/10/2008

Huntsman Wells Gauging Information (Well Points)

Well ID	Date	Time	PID	Depth to Product (ft)	Depth to Water (ft)	(1) Product Thickness (ft)	(2) Well Bailed Yes/No	Comments
WP-1	6-21-10	10:19	78.0	N/A	7.68	N/A		
WP-2	↓	10:49	0.0	N/A	5.89	N/A		
WP-3		10:48	0.0	N/A	5.50	N/A		
WP-7		10:38	0.0	N/A	9.37	N/A		
WP-14	↓	11:28	5.0	N/A	3.98	N/A		TAR at bottom of well
WP-25	6-21-10	10:27	14.0	N/A	9.85	N/A		
WP-26S	6-21-10	10:35	1.0	N/A	6.82	N/A		
WP-26D	6-21-10	10:21	5.0	N/A	7.53	N/A		
WP-27S	↓	10:15	28.0	N/A	11.67	N/A		
WP-27D		10:17	1.0	N/A	11.53	N/A		
WP-30	↓	10:41	0.0	N/A	10.106	N/A		
WP-31	6-21-10	10:29	N/A	N/A	N/A	N/A		Cannot Remove
WP-32	6-21-10	10:13	2.0	N/A	N/A	N/A		DRY TD 11.55
WP-33	↓	10:44	0.0	N/A	7.40	N/A		
MW-10	↓	10:37	1.0	N/A	6.81	N/A		TD: 19.89 Recovery well w/pump

(1) Product Thickness = (depth to water) - (depth to product)
(2) See Well Bailing field form
Note: Water Equals Non Product Liquids

Data Collector: _____

Revised: 12/10/2008

(58)

0102010 HUNTSMAN SEMI-ANNUAL 6/21/10 MON
GAUGING / SAMPLING
0700 ARRIVE OFFICE - ERM
OBJECT: GAUGE AND SAMPLE WELLS
PERSONNEL: ERM RANDY ORTLUND
VIVATECH: HECTOR DIAZ
EQUIP: T-84, CELL, TOOL KIT, PID, P-PUMP
OWIP, GW SAMPLING KIT
WEATHER: CLR, SUNNY, HOT, LO HMD, BREEZY
S 5-10 MPH, 80-105 °F
H+S: REVIEW, FILL OUT, SIGN DAILY FM
0750 VIVATECH ON SITE - ERM OFFICE
(SCHEDULED TO BE HERE AT 7AM)
- WROTE UP, REVIEW, DISCUSS
AND SIGN DAILY H+S FORM:
EMPHASIZE HEAT, FLUIDS
S/T/F, INSECTS SPIDERS, UV
0810 RENTAL EQUIP ARRIVED, WAS
DUE ON FRIDAY - LATE!
0845 DEPART FOR HUNTSMAN SITE
0920 ARRIVE ON SITE - HUNTSMAN
- OPEN ALL WELLS - PID CK
- GAUGE CLEAN WELLS - WL
- GAUGE DIRTY WELLS - OWIP
1200 FINISHED OPENING ALL
WELLS AND CHECKING W/PID

Randolph Ortlund 6/21/10

(59)

0102010 HUNTSMAN S/A G/S 6/21/10 MON
- CALIBRATED OVM PID 580 B THIS
MORNING (100 PPMV ISOBUTYLENE)
READ ~~100~~ PPMV - OK 100.10
1205 GAUGE CLEAN WELLS
1400 FINISHED GAUGING - CLEAN WELLS
1359 PURGE AND SAMPLE MW-05
1355 SET AND FB-1 BY MW-05
1445 MW-05 SAMPLE TIME:
- BTEX 3x40mL VOAS HCL+ICE
- PAHS 2x1L AMBER+ICE
- METALS 1x 500mL POLY HNO3+ICE
NOT FIELD FILTERED
1530 FB-1 CAPPED:
- BTEX 3x40mL VOAS HCL+ICE
SAMPLES PLACED IN COOLER+ICE
1535 FINISHED GAUGING DIRTY WELLS
- CLEAN UP AND STORE IN COMPOUND
- DUMP PURGE WATER
- PREPARE TO DEPART SITE
- VIVATECH HAS A DOC APT ~ 1630
1555 OFF SITE - BACK TO OFFICE
COMPOUND LOCKED, GATE LOCKED
WELLS SECURED
- MEET AT ~~SITE~~ OFFICE 7AM TOMORROW
- 102 °F TODAY

Randolph Ortlund 6/21/10

(60) 2437

0102010 HUNTSMAN S/A - G/S 6/22/10 TUE

0630 ARRIVE OFFICE

OBJECT: CONTINUE GW SAMPLING

PERSONNEL: ERM-RANDY OSTLUND
VIVA TECH - HECTOR DIAZ

EQUIP: T-84, CELL, DRILL KIT, GW SAMPLING EQUIP, PID, P-PUMP

WEATHER: PTLY CLDY, SUNNY, HOT, LO HUMID
WINDY SW 5-15 MPH, 80-105°F

H&S: REVIEW, WRITE-UP, SIGN DAILY FORM

0645 PID OVM 580B CAL CK
(100 ppm ISOBUTYLENE)
READ 102.1 ppmv OK

0650 VIVA TECH ON SITE
REVIEW H&S DAILY FORM-SIGN

0700 DEPART FOR HUNTSMAN

0735 ARRIVE ON SITE - HUNTSMAN
PREP FOR GW SAMPLING

0830 SAMPLE TIME EB-1
WATER LEVEL PROBE

0830 SET OUT FB-2 @ MW-08

0845 CALCK TURBIDITY METER
LAMOTTE 2020
0.00 STD READ 0.00 NTU OK
10.00 STD READ 10.04 NTU CK

Randolph Ostlund 6/22/10

(61) 2437

010 2010 HUNTSMAN S/A - G/S 6/22/10 TUE

CALK YSI 600
PH STD = 7.00 READ 7.04 OK
STD = 10.00 READ 9.90 OK
COND = 1000 READ 1092 OK

0855 BEGIN PURGING MW-08

0930 SAMPLE TIME MW-08
- BTEX 3x40ml VOAS HCL
- PAHS 2x1L AMBER —
- METALS 1x500 POLY HNO3
SAMPLES PLACED IN COOLER, ICE 577

1005 SET UP AND PURGE MW-11

1050 SAMPLE TIME MW-11:
- BTEX 3x40ml VOAS HCL
- PAHS 2x1L AMBER —
- METALS 1x500 POLY HNO3
SAMPLES PLACED IN COOLER, ICE

1120 SET UP AND PURGE MW-17

1210 SAMPLE TIME MW-17:
- BTEX 3x40ml VOAS HCL
- PAHS 2x1L AMBER —
- METALS 1x500 POLY HNO3
SAMPLES ON ICE IN COOLER

1240 BREAK FOR LUNCH - OFFSITE

1330 BACK ON SITE
SET-UP AND PURGE MW-14

Randolph Ostlund 6/22/10

(62) xx-ST

0102010 HUNTSMAN SITE - G/S 6/22/10 TRE

1445 SAMPLE MW-14:
- BTEX 3x40ml VOAS HCL
- PAHS 2x1L AMBER -
- METALS 1x500ml POLY HNO_3

SAMPLES IN COOLER ON ICE

1505 SET UP AND PURGE MW-07

1605 SAMPLE TIME MW-07:
- BTEX 3x40ml VOAS HCL
- PAHS 2x1L AMBER -
- METALS 1x500ml POLY HNO_3

SAMPLES IN COOLER ON ICE

1640 FB-2 SAMPLE VOAS SEALED 3x40ml VOAS HCL - BTEX

1645 CLEAN UP WORK AREA

1700 OFFSITE BACK TO OFFICE
- COMPOUND, MAIN GATES LOCKED

1725 ARRIVE OFFICE:
- PLACE 2 COOLERS W/SAMPLES ON ICE IN OFFICE
- PLACE EQUIP ON CHARGE PID / PERISTALTIC PUMP

1730 VIVA JACK OFFSITE END

Randolph Ostlund 6/22/10

(63) xx-ST WAD

010010 HUNTSMAN SITE - G/S 6/23/10 TRE

0645 ARRIVE EBM OFFICE

OBJECT: CONTINUE SAMPLING TASKS

PERSONNEL: EBM RANDY OSTLUND
VIVA JACK - HELPER AIDE

EQUIP: IT-84, CELL, TOOL KIT, GW SAMPLE KIT, PID, P-PUMP

WEATHER: CLR, DRY CLOY, SUNNY, HOT, LO HUMID, SW 0-10 MPH, 80-105 °F

H&S: FILL OUT, REVIEW, SIGN DAILY FORM

0700 VIVA JACK ON SITE
- REVIEW H&S, SIGN FORM
- LOAD UP TRUCKS

0735 DEPART FOR HUNTSMAN
BUY ICE

0810 ARRIVE ON SITE - HUNTSMAN

0820 SET UP AND PURGE MW-04
- CALCK LAMOTTE 2020 TURBIDITY METER:
- 0.00 STD READ - 0.08 NTU OK
- 10.00 STD READ 10.07 NTU OK
- CALCK YSI 600
- 7.00 STD PH READ 7.06 OK
- 10.00 STD PH READ 9.91 OK
- 1000 STD COND READ 1101 OK

0930 FB-3 SET OUT TIME (DIST H2O)

Randolph Ostlund 6/23/10

(64)

010201O HUNTSMAN S/B-G/S 6/23/10 WED

0945 SAMPLE TIME MW-04:
- BTEX 3x40ml VOAS HCl
- PAHS 2x1L AMBER —
- METALS 1x500ml POLY HNO3
- SAMPLES ON ICE IN COOLER

1010 SET UP AND PURGE MW-15
1110 SAMPLE TIME MW-15
- BTEX 3x40ml VOAS HCl
- PAHS 2x1L AMBER —
- METALS 1x500ml POLY HNO3

1135 SET UP AND PURGE MW-09S
1225 SAMPLE TIME MW-9S
- BTEX 3x40ml VOAS HCl
- PAHS 2x1L AMBER —
- METALS 1x500ml POLY HNO3
- SAMPLES IN COOLER ON ICE

1250 BREAK FOR LUNCH
1340 BACK ON SITE-
1345 SET UP MW-3D AND PURGE
1440 SAMPLE TIME MW-3D:
- BTEX 3x40ml VOAS HCl
- PAHS 2x1L AMBER —
- METALS 1x500ml POLY HNO3
- SAMPLES IN COOLER ON ICE

1500 SET-UP AND PURGE MW-3S

Randolph Ostlund 6/23/10

(65)

010201O HUNTSMAN S/B-G/S 6/23/10 WED

1540 SAMPLE TIME MW-3S:
- BTEX 3x40ml VOAS HCl
- PAHS 2x1L AMBER —
- METALS 1x500ml POLY HNO3
- SAMPLES IN COOLER ON ICE

1600 SET UP FOR RIVER SAMPLES
CLEAN RIVER SAMPLER
1610 FB-2 RIVER SAMPLER
- DISTILLED WATER
- 3x40ml VOAS HCl
1630 RIVER-UPSTREAM SAMPLE TIME
1700 RIVER-DOWNSTREAM SAMPLE TIME
- 3x40ml VOAS HCl BTEX
- 2x1L AMBER — PAHS
- 1x500ml POLY HNO3 METALS
SAMPLES IN COOLER ON ICE

1720 CLEAN UP SITE - DUMP WATER
1730 FB-3 SAMPLE VOAS SEALED
3x40ml VOAS HCl

1800 DEPART SITE BACK TO OFFICE
- COMPOUND, GATE ENTRANCE LOCKED
WELLS LOCKED/SECURED
- UNLOAD COOLERS AT OFFICE AND
PACK w/ MORE ICE

1830 BACK AT OFFICE PACK COOLERS
1845 OFF DE [illegible]

Randolph Ostlund 6/23/10

(66) 2437

010210 HUNTSMAN S/A - G/S 6/24/10 OTTERLAND

0655 ARRIVE ERM OFFICE
VIVATECH DECTOR ON SITE
OBJECT: FINISH GW SAMPLING TASKS
PERSONNEL: ERM RANDY OTTLAND
- VIVATECH HECTOR DIAZ
EQUIP: T-84, CELL, TOOL KIT, PID, OWIP,
PERISTALTIC PUMP, GW SAMPLING KIT
WEATHER: CLR, SUNNY, HOT, WINDY, MOD
HUMID, NE 10-20 MPH, 80-100°F
H+S: REVIEW, FOLLOW, SIGN DAILY FORM
0705 REVIEW H+S PROGRAM W/ TECH
- CHECK AND REPACK SAMPLES
0830 DEPART FOR SITE - HUNTSMAN
0900 ARRIVE ON SITE - HUNTSMAN
- SET-UP MW-6D AND PURGE
0930 FB-4 SET OUT TIME (DISTILLED H_2O)
- CAL CK:
- LAMOTTE 2020 TURBIDIMETER:
0.00 STD READ 0.07 NTU OK
10.00 STD READ 10.01 NTU OK
- YSI 600
PH 7.00 STD READ 7.06 OK
PH 10.00 STD READ 9.985 OK
COND 1.0 STD READ 0.989 OK
1035 SAMPLE TIME MW-6D

Randolph Ottland 6/24/10

(67) 2437

010210 HUNTSMAN S/A - G/S 6/24/10 OTTERLAND

- BTEX 3x40ml VOAS HCL
- PAHS 2x1L AMBER -
- METALS 1x500ml POLY HNO_3
- SAMPLES ON ICE IN COOLER
1040 SET UP AND PURGE MW-6S
1130 SAMPLE TIME MW-6S
1200 SAMPLE TIME DUP-1
- DUP OF MW-6S
- BTEX 3x40ml VOAS HCL
- PAHS 2x1L AMBER -
- METALS 1x500ml POLY HNO_3
- SAMPLES ON ICE IN COOLER
1210 SET UP AND PURGE MW-10
1310 SAMPLE TIME MW-10:
- BTEX 3x40ml VOAS HCL
- PAHS 2x1L AMBER -
- METALS 1x500ml POLY HNO_3
- SAMPLES DOUBLE BAGGED ON
ICE IN COOLER
- ALL METALS SAMPLES NOT
FIELD FILTERED
1345 FB-4 SEALED
- BTEX 3x40ml VOAS HCL
- SAMPLES ON ICE IN COOLER
1400 G/S EVENT COMPLETED:

Randolph Ottland 6/24/10

0102010 Huntsman S/B - 6/5 6/24/10 THUR

- BACK TO OFFICE:
- PACK COOLERS - SHIP
- PACK REMOVAL EQUIP - SHIP

1630 AJAX REMOVAL EQUIPMENT CLEANED / PACKED / PICKED UP BY LONESTAR FOR MONDAY DELIVERY TO HOUSTON OFFICE CALLED AJAX TO STOP REMOVAL AND NOT TO SHIP FREONS FOR MONDAY DEL

1730 SAMPLE COOLERS PACKED AND SENT TO FEDEX FOR FRI AM DELIVERY TO ALS IN HOUSTON

- LAB NOTIFIED OF DELIVERY
- COC'S SENT TO BRAD TO CHECK.

1800 CONFIRMED SAMPLE COOLERS (4) DELIVERY DROP OFF AT FEDEX BY VIVA TECH HECTOR

- COPY FIELD NOTES AND SEND TO BRAD
- FOLLOW UP W/ LAB ON DELIVERY TOMORROW

Randolph Arthur 6/24/10

Laboratory Data Reports

Appendix B

April 2011
Hunstman
Project No. 0119078

Environmental Resources Management Southwest, Inc.
206 E. 9th St., Suite 1700
Austin, Texas 78701
(512) 459-4700

ALS Environmental

17-Dec-2010

Brad Stokes
ERM Southwest, Inc.
442 Bermuda
Corpus Christi, TX 78411

Tel: (361) 737-9203
Fax:

Re: Huntsman Brickland

Work Order: **1012381**

Dear Brad,

ALS Environmental received 13 samples on 10-Dec-2010 08:10 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 20.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Mary K. Knowles

Hector Coronado
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac

Certificate No: TX: T104704231-10-3

ALS Environmental

Date: 17-Dec-10

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Work Order: **1012381**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1012381-01	MW3S	Water		12/7/2010 15:40	12/10/2010 08:10	☐
1012381-02	FB-1	Water		12/7/2010 15:00	12/10/2010 08:10	☐
1012381-03	MW-3D	Water		12/7/2010 16:25	12/10/2010 08:10	☐
1012381-04	River-Upstream	Water		12/7/2010 12:00	12/10/2010 08:10	☐
1012381-05	EB-2	Water		12/7/2010 11:45	12/10/2010 08:10	☐
1012381-06	River-Downstream	Water		12/7/2010 12:30	12/10/2010 08:10	☐
1012381-07	MW-9S	Water		12/8/2010 11:15	12/10/2010 08:10	☐
1012381-08	EB-1	Water		12/8/2010 10:10	12/10/2010 08:10	☐
1012381-09	FB-2	Water		12/8/2010 10:20	12/10/2010 08:10	☐
1012381-10	Dup-1	Water		12/8/2010	12/10/2010 08:10	☐
1012381-11	MW-6D	Water		12/8/2010 12:10	12/10/2010 08:10	☐
1012381-12	MW-6S	Water		12/8/2010 14:45	12/10/2010 08:10	☐
1012381-13	TB-1	Water		12/8/2010	12/10/2010 08:10	☑

ALS Environmental *Date: 17-Dec-10*

Client:	ERM Southwest, Inc.
Project:	Huntsman Brickland
Work Order:	1012381

Case Narrative

BTEX results were report at a dilution for the followings due to matrix interference (Dup-1 &MW-6S). The samples would foam at a lower dilution.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: MW3S
Collection Date: 12/7/2010 03:40 PM

Work Order: 1012381
Lab ID: 1012381-01
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/17/2010 00:08
Toluene	U		0.20	1.0	µg/L	1	12/17/2010 00:08
Ethylbenzene	U		0.20	1.0	µg/L	1	12/17/2010 00:08
Xylenes, Total	U		0.70	3.0	µg/L	1	12/17/2010 00:08
Surr: 4-Bromofluorobenzene	*106*			*77-129*	*%REC*	1	12/17/2010 00:08
Surr: Trifluorotoluene	*101*			*75-130*	*%REC*	1	12/17/2010 00:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: FB-1
Collection Date: 12/7/2010 03:00 PM

Work Order: 1012381
Lab ID: 1012381-02
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/16/2010 22:43
Toluene	U		0.20	1.0	µg/L	1	12/16/2010 22:43
Ethylbenzene	U		0.20	1.0	µg/L	1	12/16/2010 22:43
Xylenes, Total	U		0.70	3.0	µg/L	1	12/16/2010 22:43
Surr: 4-Bromofluorobenzene	*105*			*77-129*	*%REC*	1	12/16/2010 22:43
Surr: Trifluorotoluene	*102*			*75-130*	*%REC*	1	12/16/2010 22:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: MW-3D
Collection Date: 12/7/2010 04:25 PM

Work Order: 1012381
Lab ID: 1012381-03
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/17/2010 00:25
Toluene	U		0.20	1.0	µg/L	1	12/17/2010 00:25
Ethylbenzene	U		0.20	1.0	µg/L	1	12/17/2010 00:25
Xylenes, Total	U		0.70	3.0	µg/L	1	12/17/2010 00:25
Surr: 4-Bromofluorobenzene	*107*			*77-129*	*%REC*	1	12/17/2010 00:25
Surr: Trifluorotoluene	*101*			*75-130*	*%REC*	1	12/17/2010 00:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: River-Upstream
Collection Date: 12/7/2010 12:00 PM

Work Order: 1012381
Lab ID: 1012381-04
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/17/2010 00:42
Toluene	U		0.20	1.0	µg/L	1	12/17/2010 00:42
Ethylbenzene	U		0.20	1.0	µg/L	1	12/17/2010 00:42
Xylenes, Total	U		0.70	3.0	µg/L	1	12/17/2010 00:42
Surr: 4-Bromofluorobenzene	*107*			*77-129*	*%REC*	1	12/17/2010 00:42
Surr: Trifluorotoluene	*103*			*75-130*	*%REC*	1	12/17/2010 00:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: EB-2
Collection Date: 12/7/2010 11:45 AM

Work Order: 1012381
Lab ID: 1012381-05
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/16/2010 23:00
Toluene	U		0.20	1.0	µg/L	1	12/16/2010 23:00
Ethylbenzene	U		0.20	1.0	µg/L	1	12/16/2010 23:00
Xylenes, Total	U		0.70	3.0	µg/L	1	12/16/2010 23:00
Surr: 4-Bromofluorobenzene	*107*			*77-129*	*%REC*	1	12/16/2010 23:00
Surr: Trifluorotoluene	*104*			*75-130*	*%REC*	1	12/16/2010 23:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: River-Downstream
Collection Date: 12/7/2010 12:30 PM

Work Order: 1012381
Lab ID: 1012381-06
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/17/2010 00:59
Toluene	U		0.20	1.0	µg/L	1	12/17/2010 00:59
Ethylbenzene	U		0.20	1.0	µg/L	1	12/17/2010 00:59
Xylenes, Total	U		0.70	3.0	µg/L	1	12/17/2010 00:59
Surr: 4-Bromofluorobenzene	*108*			*77-129*	*%REC*	1	12/17/2010 00:59
Surr: Trifluorotoluene	*103*			*75-130*	*%REC*	1	12/17/2010 00:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: MW-9S
Collection Date: 12/8/2010 11:15 AM

Work Order: 1012381
Lab ID: 1012381-07
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/17/2010 01:16
Toluene	U		0.20	1.0	µg/L	1	12/17/2010 01:16
Ethylbenzene	U		0.20	1.0	µg/L	1	12/17/2010 01:16
Xylenes, Total	U		0.70	3.0	µg/L	1	12/17/2010 01:16
Surr: 4-Bromofluorobenzene	*110*			*77-129*	*%REC*	1	12/17/2010 01:16
Surr: Trifluorotoluene	*104*			*75-130*	*%REC*	1	12/17/2010 01:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: EB-1
Collection Date: 12/8/2010 10:10 AM

Work Order: 1012381
Lab ID: 1012381-08
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/16/2010 23:17
Toluene	U		0.20	1.0	µg/L	1	12/16/2010 23:17
Ethylbenzene	U		0.20	1.0	µg/L	1	12/16/2010 23:17
Xylenes, Total	U		0.70	3.0	µg/L	1	12/16/2010 23:17
Surr: 4-Bromofluorobenzene	*106*			*77-129*	*%REC*	1	12/16/2010 23:17
Surr: Trifluorotoluene	*103*			*75-130*	*%REC*	1	12/16/2010 23:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: FB-2
Collection Date: 12/8/2010 10:20 AM

Work Order: 1012381
Lab ID: 1012381-09
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/16/2010 23:34
Toluene	U		0.20	1.0	µg/L	1	12/16/2010 23:34
Ethylbenzene	U		0.20	1.0	µg/L	1	12/16/2010 23:34
Xylenes, Total	U		0.70	3.0	µg/L	1	12/16/2010 23:34
Surr: 4-Bromofluorobenzene	*106*			*77-129*	*%REC*	1	12/16/2010 23:34
Surr: Trifluorotoluene	*103*			*75-130*	*%REC*	1	12/16/2010 23:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: Dup-1
Collection Date: 12/8/2010

Work Order: 1012381
Lab ID: 1012381-10
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		1.0	5.0	µg/L	5	12/16/2010 20:33
Toluene	U		1.0	5.0	µg/L	5	12/16/2010 20:33
Ethylbenzene	U		1.0	5.0	µg/L	5	12/16/2010 20:33
Xylenes, Total	U		3.5	15	µg/L	5	12/16/2010 20:33
Surr: 4-Bromofluorobenzene	*106*			*77-129*	*%REC*	5	12/16/2010 20:33
Surr: Trifluorotoluene	*107*			*75-130*	*%REC*	5	12/16/2010 20:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: MW-6D
Collection Date: 12/8/2010 12:10 PM

Work Order: 1012381
Lab ID: 1012381-11
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/17/2010 04:06
Toluene	U		0.20	1.0	µg/L	1	12/17/2010 04:06
Ethylbenzene	U		0.20	1.0	µg/L	1	12/17/2010 04:06
Xylenes, Total	U		0.70	3.0	µg/L	1	12/17/2010 04:06
Surr: 4-Bromofluorobenzene	*111*			*77-129*	*%REC*	1	12/17/2010 04:06
Surr: Trifluorotoluene	*103*			*75-130*	*%REC*	1	12/17/2010 04:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: MW-6S
Collection Date: 12/8/2010 02:45 PM

Work Order: 1012381
Lab ID: 1012381-12
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		1.0	5.0	µg/L	5	12/16/2010 20:50
Toluene	U		1.0	5.0	µg/L	5	12/16/2010 20:50
Ethylbenzene	U		1.0	5.0	µg/L	5	12/16/2010 20:50
Xylenes, Total	U		3.5	15	µg/L	5	12/16/2010 20:50
Surr: 4-Bromofluorobenzene	*107*			*77-129*	*%REC*	5	12/16/2010 20:50
Surr: Trifluorotoluene	*108*			*75-130*	*%REC*	5	12/16/2010 20:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: *17-Dec-10*

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
Sample ID: TB-1
Collection Date: 12/8/2010

Work Order: 1012381
Lab ID: 1012381-13
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	U		0.20	1.0	µg/L	1	12/16/2010 23:51
Toluene	U		0.20	1.0	µg/L	1	12/16/2010 23:51
Ethylbenzene	U		0.20	1.0	µg/L	1	12/16/2010 23:51
Xylenes, Total	U		0.70	3.0	µg/L	1	12/16/2010 23:51
Surr: 4-Bromofluorobenzene	*106*			*77-129*	*%REC*	1	12/16/2010 23:51
Surr: Trifluorotoluene	*102*			*75-130*	*%REC*	1	12/16/2010 23:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 17-Dec-10

Client: ERM Southwest, Inc.

Work Order: 1012381

Project: Huntsman Brickland

QC BATCH REPORT

Batch ID: **R102688** Instrument ID **BTEX1** Method: **SW8021B**

MBLK Sample ID: **BBLKW2-121610-R102688** Units: **µg/L** Analysis Date: **12/16/2010 08:16 PM**

Client ID: Run ID: **BTEX1_101216B** SeqNo: **2217136** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Toluene	U	1.0								
Ethylbenzene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 4-Bromofluorobenzene	*32.16*	1.0	*30*	0	*107*	*77-129*	0			
Surr: Trifluorotoluene	*30.51*	1.0	*30*	0	*102*	*75-130*	0			

LCS Sample ID: **BLCSW2-121610-R102688** Units: **µg/L** Analysis Date: **12/16/2010 07:42 PM**

Client ID: Run ID: **BTEX1_101216B** SeqNo: **2217134** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.34	1.0	20	0	107	77-126	0			
Toluene	21.14	1.0	20	0	106	80-124	0			
Ethylbenzene	21.07	1.0	20	0	105	76-125	0			
Xylenes, Total	63.37	3.0	60	0	106	79-124	0			
Surr: 4-Bromofluorobenzene	*32.6*	1.0	*30*	0	*109*	*77-129*	0			
Surr: Trifluorotoluene	*31.03*	1.0	*30*	0	*103*	*75-130*	0			

LCSD Sample ID: **BLCSDW2-121610-R102688** Units: **µg/L** Analysis Date: **12/16/2010 07:59 PM**

Client ID: Run ID: **BTEX1_101216B** SeqNo: **2217135** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.01	1.0	20	0	105	77-126	21.34	1.59	20	
Toluene	20.9	1.0	20	0	104	80-124	21.14	1.15	20	
Ethylbenzene	20.85	1.0	20	0	104	76-125	21.07	1.02	20	
Xylenes, Total	62.36	3.0	60	0	104	79-124	63.37	1.61	20	
Surr: 4-Bromofluorobenzene	*33.51*	1.0	*30*	0	*112*	*77-129*	32.6	*2.75*	*20*	
Surr: Trifluorotoluene	*31.64*	1.0	*30*	0	*105*	*75-130*	31.03	*1.94*	*20*	

MS Sample ID: **1012381-12AMS** Units: **µg/L** Analysis Date: **12/16/2010 09:08 PM**

Client ID: **MW-6S** Run ID: **BTEX1_101216B** SeqNo: **2217139** Prep Date: DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	107.6	5.0	100	0	108	77-126	0			
Toluene	107.8	5.0	100	0	108	80-124	0			
Ethylbenzene	108.3	5.0	100	0	108	76-125	0			
Xylenes, Total	332.9	15	300	2.533	110	79-124	0			
Surr: 4-Bromofluorobenzene	*169*	5.0	*150*	0	*113*	*77-129*	0			
Surr: Trifluorotoluene	*162.2*	5.0	*150*	0	*108*	*75-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1012381
Project: Huntsman Brickland

QC BATCH REPORT

Batch ID: **R102688** Instrument ID **BTEX1** Method: **SW8021B**

MSD Sample ID: **1012381-12AMSD** Units: **µg/L** Analysis Date: **12/16/2010 09:25 PM**

Client ID: **MW-6S** Run ID: **BTEX1_101216B** SeqNo: **2217140** Prep Date: DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	108.8	5.0	100	0	109	77-126	107.6	1.1	20	
Toluene	109.3	5.0	100	0	109	80-124	107.8	1.41	20	
Ethylbenzene	110.2	5.0	100	0	110	76-125	108.3	1.73	20	
Xylenes, Total	336.5	15	300	2.533	111	79-124	332.9	1.07	20	
Surr: 4-Bromofluorobenzene	*171.3*	5.0	*150*	0	*114*	*77-129*	169	*1.35*	*20*	
Surr: Trifluorotoluene	*163.4*	5.0	*150*	0	*109*	*75-130*	162.2	*0.745*	*20*	

The following samples were analyzed in this batch:

1012381-01A	1012381-02A	1012381-03A
1012381-04A	1012381-05A	1012381-06A
1012381-07A	1012381-08A	1012381-09A
1012381-10A	1012381-11A	1012381-12A
1012381-13A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 17-Dec-10

Client: ERM Southwest, Inc.
Project: Huntsman Brickland
WorkOrder: **1012381**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported	Description
µg/L	Micrograms per Liter

ALS Environmental

Sample Receipt Checklist

Client Name: **ERMSW-CC** Date/Time Received: **10-Dec-10 08:10**

Work Order: **1012381** Received by: **RNG**

Checklist completed by RaynaN Garza eSignature 10-Dec-10 Date Reviewed by: HeatherCoomb eSignature 13-Dec-10 Date

Matrices: Water
Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.9c	002	
Cooler(s)/Kit(s):	3871		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ALS Environmental

30-Jul-2010

Brad Stokes
ERM Southwest, Inc.
442 Bermuda
Corpus Christi, TX 78411

Tel: (361) 737-9203
Fax:

Re: Huntsman - 0102010 Work Order: **1006845**

Dear Brad,

ALS Laboratory Group received 24 samples on 25-Jun-2010 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 51.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Hector Coronado

Electronically approved by: Hector Coronado

Hector Coronado
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
Certificate No: TX: T104704231-10-3

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Work Order: 1006845

TRRP Laboratory Data Package Cover Page

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation:

R2 Sample identification cross-reference

R3 Test reports (analytical data sheets) for each environmental sample that includes:
- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) cleanup methods, and
- e) if required for the project, tentatively identified compounds (TICs).

R4 Surrogate recovery data including:
- a) Calculated recovery (%R), and
- b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms for laboratory control samples (LCSs) including:
- a) LCS spiking amounts,
- b) Calculated %R for each analyte, and
- c)The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d) Calculated %Rs and relative percent differences (RPDs), and
- e) The laboratory's MS/MSD QC limits

R8 Laboratory analytical duplicate (if applicable) recovery and precision:
- a) the amount of analyte measured in the duplicate,
- b) the calculated RPD, and
- c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;?

R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [ ] TCEQ or [ ] _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Hector Coronado

Hector Coronado
Project Manager

ALS Laboratory Group

Date: 30-Jul-10

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Work Order: **1006845**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1006845-01	MW-5	Water		6/21/2010 14:45	6/25/2010 09:00	☐
1006845-02	MW-8	Water		6/22/2010 09:30	6/25/2010 09:00	☐
1006845-03	MW-11	Water		6/22/2010 10:50	6/25/2010 09:00	☐
1006845-04	MW-17	Water		6/22/2010 12:10	6/25/2010 09:00	☐
1006845-05	MW-14	Water		6/22/2010 14:45	6/25/2010 09:00	☐
1006845-06	MW-7	Water		6/22/2010 16:05	6/25/2010 09:00	☐
1006845-07	MW-4	Water		6/23/2010 09:45	6/25/2010 09:00	☐
1006845-08	MW-15	Water		6/23/2010 11:10	6/25/2010 09:00	☐
1006845-09	MW-9S	Water		6/23/2010 12:25	6/25/2010 09:00	☐
1006845-10	MW-3D	Water		6/23/2010 14:40	6/25/2010 09:00	☐
1006845-11	RIVER-UPSTREAM	Water		6/23/2010 16:30	6/25/2010 09:00	☐
1006845-12	RIVER-DOWNSTREAM	Water		6/23/2010 17:00	6/25/2010 09:00	☐
1006845-13	FB-1	Water		6/21/2010 13:15	6/25/2010 09:00	☐
1006845-14	FB-2	Water		6/22/2010 08:30	6/25/2010 09:00	☐
1006845-15	FB-3	Water		6/23/2010 09:30	6/25/2010 09:00	☐
1006845-16	FB-4	Water		6/23/2010 09:30	6/25/2010 09:00	☐
1006845-17	EB-1	Water		6/22/2010 08:30	6/25/2010 09:00	☐
1006845-18	EB-2	Water		6/23/2010 16:10	6/25/2010 09:00	☐
1006845-19	MW-6D	Water		6/24/2010 10:35	6/25/2010 09:00	☐
1006845-20	MW-6S	Water		6/24/2010 11:30	6/25/2010 09:00	☐
1006845-21	MW-10	Water		6/24/2010 13:10	6/25/2010 09:00	☐
1006845-22	DUP-1	Water		6/24/2010 12:00	6/25/2010 09:00	☐
1006845-23	Trip Blank	Water		6/24/2010	6/25/2010 09:00	☐
1006845-24	MW-3S	Water		6/23/2010 15:40	6/25/2010 09:00	☐

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-5
Collection Date: 6/21/2010 02:45 PM

Work Order: 1006845
Lab ID: 1006845-01
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	**2.2**		**0.010**	**0.050**	**mg/L**	50	6/30/2010 15:18
Toluene	**0.0067**		**0.00020**	**0.0010**	**mg/L**	1	7/1/2010 21:26
Ethylbenzene	**0.0030**		**0.00020**	**0.0010**	**mg/L**	1	7/1/2010 21:26
Xylenes, Total	**0.021**		**0.00070**	**0.0030**	**mg/L**	1	7/1/2010 21:26
Surr: 4-Bromofluorobenzene	*102*			*77-129*	*%REC*	50	6/30/2010 15:18
Surr: 4-Bromofluorobenzene	*90.1*			*77-129*	*%REC*	1	7/1/2010 21:26
Surr: Trifluorotoluene	*101*			*75-130*	*%REC*	50	6/30/2010 15:18
Surr: Trifluorotoluene	*114*			*75-130*	*%REC*	1	7/1/2010 21:26
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0040	0.0500	mg/L	10	6/29/2010 21:54
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 17:00
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:00
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:00
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:00
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 17:00
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 17:00
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 17:00
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 17:00
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:00
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 17:00
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:00
Fluorene	**0.00027**		**0.000070**	**0.00020**	**mg/L**	1	7/21/2010 17:00
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 17:00
Naphthalene	**0.00040**		**0.00010**	**0.00020**	**mg/L**	1	7/21/2010 17:00
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:00
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-8
Collection Date: 6/22/2010 09:30 AM

Work Order: 1006845
Lab ID: 1006845-02
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	**6.8**		**0.020**	**0.10**	**mg/L**	100	6/30/2010 17:43
Toluene	**0.027**		**0.00020**	**0.0010**	**mg/L**	1	7/1/2010 21:44
Ethylbenzene	**0.023**		**0.00020**	**0.0010**	**mg/L**	1	7/1/2010 21:44
Xylenes, Total	**0.032**		**0.00070**	**0.0030**	**mg/L**	1	7/1/2010 21:44
Surr: 4-Bromofluorobenzene	*104*			*77-129*	*%REC*	100	6/30/2010 17:43
Surr: 4-Bromofluorobenzene	*93.0*			*77-129*	*%REC*	1	7/1/2010 21:44
Surr: Trifluorotoluene	*116*			*75-130*	*%REC*	100	6/30/2010 17:43
Surr: Trifluorotoluene	*1,060*	SE		*75-130*	*%REC*	1	7/1/2010 21:44
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/29/2010 21:59
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	**0.00023**		**0.000090**	**0.00020**	**mg/L**	1	7/21/2010 17:21
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:21
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:21
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:21
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 17:21
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 17:21
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 17:21
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 17:21
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:21
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 17:21
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:21
Fluorene	**0.00028**		**0.000070**	**0.00020**	**mg/L**	1	7/21/2010 17:21
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 17:21
Naphthalene	**0.0017**		**0.00010**	**0.00020**	**mg/L**	1	7/21/2010 17:21
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:21
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-11
Collection Date: 6/22/2010 10:50 AM

Work Order: 1006845
Lab ID: 1006845-03
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 14:50
Toluene	ND		0.00020	0.0010	mg/L	1	7/2/2010 14:50
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 14:50
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/2/2010 14:50
Surr: 4-Bromofluorobenzene	*106*			*77-129*	*%REC*	1	7/2/2010 14:50
Surr: Trifluorotoluene	*106*			*75-130*	*%REC*	1	7/2/2010 14:50
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/29/2010 22:05
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 17:42
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:42
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:42
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:42
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 17:42
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 17:42
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 17:42
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 17:42
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:42
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 17:42
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:42
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:42
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 17:42
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 17:42
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:42
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 17:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-17
Collection Date: 6/22/2010 12:10 PM

Work Order: 1006845
Lab ID: 1006845-04
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 15:09
Toluene	ND		0.00020	0.0010	mg/L	1	7/2/2010 15:09
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 15:09
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/2/2010 15:09
Surr: 4-Bromofluorobenzene	*87.8*			*77-129*	*%REC*	1	7/2/2010 15:09
Surr: Trifluorotoluene	*99.6*			*75-130*	*%REC*	1	7/2/2010 15:09
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/29/2010 22:15
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 18:02
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:02
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:02
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:02
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 18:02
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 18:02
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 18:02
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 18:02
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:02
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 18:02
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:02
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:02
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 18:02
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 18:02
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:02
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-14
Collection Date: 6/22/2010 02:45 PM

Work Order: 1006845
Lab ID: 1006845-05
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 20:22
Toluene	ND		0.00020	0.0010	mg/L	1	6/30/2010 20:22
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 20:22
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	6/30/2010 20:22
Surr: 4-Bromofluorobenzene	*107*			*77-129*	*%REC*	1	6/30/2010 20:22
Surr: Trifluorotoluene	*99.8*			*75-130*	*%REC*	1	6/30/2010 20:22
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0040	0.0500	mg/L	10	6/30/2010 22:34
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 18:23
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:23
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:23
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:23
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 18:23
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 18:23
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 18:23
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 18:23
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:23
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 18:23
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:23
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:23
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 18:23
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 18:23
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:23
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-7
Collection Date: 6/22/2010 04:05 PM

Work Order: 1006845
Lab ID: 1006845-06
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX			Method: **SW8021B**				Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 15:28
Toluene	ND		0.00020	0.0010	mg/L	1	7/2/2010 15:28
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 15:28
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/2/2010 15:28
Surr: 4-Bromofluorobenzene	*88.6*			*77-129*	*%REC*	1	7/2/2010 15:28
Surr: Trifluorotoluene	*99.4*			*75-130*	*%REC*	1	7/2/2010 15:28
METALS			Method: **SW6020**		Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/30/2010 22:40
LOW-LEVEL PAHS			Method: **SW8270**		Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 18:44
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:44
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:44
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:44
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 18:44
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 18:44
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 18:44
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 18:44
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:44
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 18:44
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:44
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:44
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 18:44
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 18:44
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:44
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 18:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-4
Collection Date: 6/23/2010 09:45 AM

Work Order: 1006845
Lab ID: 1006845-07
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 15:47
Toluene	ND		0.00020	0.0010	mg/L	1	7/2/2010 15:47
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 15:47
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/2/2010 15:47
Surr: 4-Bromofluorobenzene	*91.8*			*77-129*	*%REC*	1	7/2/2010 15:47
Surr: Trifluorotoluene	*103*			*75-130*	*%REC*	1	7/2/2010 15:47
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/30/2010 22:50
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 19:05
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:05
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:05
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:05
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 19:05
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 19:05
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 19:05
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 19:05
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:05
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 19:05
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:05
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:05
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 19:05
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 19:05
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:05
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-15
Collection Date: 6/23/2010 11:10 AM

Work Order: 1006845
Lab ID: 1006845-08
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 23:23
Toluene	ND		0.00020	0.0010	mg/L	1	7/1/2010 23:23
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 23:23
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/1/2010 23:23
Surr: 4-Bromofluorobenzene	*90.2*			*77-129*	*%REC*	1	7/1/2010 23:23
Surr: Trifluorotoluene	*105*			*75-130*	*%REC*	1	7/1/2010 23:23
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/30/2010 22:55
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 19:26
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:26
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:26
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:26
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 19:26
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 19:26
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 19:26
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 19:26
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:26
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 19:26
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:26
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:26
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 19:26
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 19:26
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:26
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-9S
Collection Date: 6/23/2010 12:25 PM

Work Order: 1006845
Lab ID: 1006845-09
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 23:49
Toluene	ND		0.00020	0.0010	mg/L	1	7/1/2010 23:49
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 23:49
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/1/2010 23:49
Surr: 4-Bromofluorobenzene	*92.7*			*77-129*	*%REC*	1	7/1/2010 23:49
Surr: Trifluorotoluene	*95.0*			*75-130*	*%REC*	1	7/1/2010 23:49
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/30/2010 23:16
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 19:47
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:47
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:47
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:47
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 19:47
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 19:47
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 19:47
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 19:47
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:47
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 19:47
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:47
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:47
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 19:47
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 19:47
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:47
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 19:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-3D
Collection Date: 6/23/2010 02:40 PM

Work Order: 1006845
Lab ID: 1006845-10
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 22:22
Toluene	ND		0.00020	0.0010	mg/L	1	6/30/2010 22:22
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 22:22
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	6/30/2010 22:22
Surr: 4-Bromofluorobenzene	*105*			*77-129*	*%REC*	1	6/30/2010 22:22
Surr: Trifluorotoluene	*95.8*			*75-130*	*%REC*	1	6/30/2010 22:22
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0040	0.0500	mg/L	10	6/29/2010 20:47
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 20:08
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:08
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:08
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:08
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 20:08
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 20:08
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 20:08
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 20:08
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:08
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 20:08
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:08
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:08
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 20:08
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 20:08
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:08
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: RIVER-UPSTREAM
Collection Date: 6/23/2010 04:30 PM

Work Order: 1006845
Lab ID: 1006845-11
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX			Method: **SW8021B**				Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 23:22
Toluene	ND		0.00020	0.0010	mg/L	1	6/30/2010 23:22
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 23:22
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	6/30/2010 23:22
Surr: 4-Bromofluorobenzene	*105*			*77-129*	*%REC*	1	6/30/2010 23:22
Surr: Trifluorotoluene	*99.0*			*75-130*	*%REC*	1	6/30/2010 23:22
METALS			Method: **SW6020**		Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.00040	0.00500	mg/L	1	6/29/2010 02:55
LOW-LEVEL PAHS			Method: **SW8270**		Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 20:29
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:29
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:29
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:29
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 20:29
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 20:29
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 20:29
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 20:29
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:29
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 20:29
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:29
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:29
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 20:29
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 20:29
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:29
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: RIVER-DOWNSTREAM
Collection Date: 6/23/2010 05:00 PM

Work Order: 1006845
Lab ID: 1006845-12
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX			Method: **SW8021B**				Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 23:42
Toluene	ND		0.00020	0.0010	mg/L	1	6/30/2010 23:42
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 23:42
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	6/30/2010 23:42
Surr: 4-Bromofluorobenzene	*104*			*77-129*	*%REC*	1	6/30/2010 23:42
Surr: Trifluorotoluene	*96.3*			*75-130*	*%REC*	1	6/30/2010 23:42
METALS			Method: **SW6020**		Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.00040	0.00500	mg/L	1	6/29/2010 03:11
LOW-LEVEL PAHS			Method: **SW8270**		Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 20:50
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:50
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:50
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:50
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 20:50
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 20:50
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 20:50
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 20:50
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:50
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 20:50
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:50
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:50
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 20:50
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 20:50
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:50
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 20:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: FB-1
Collection Date: 6/21/2010 01:15 PM

Work Order: 1006845
Lab ID: 1006845-13
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 14:58
Toluene	ND		0.00020	0.0010	mg/L	1	6/30/2010 14:58
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 14:58
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	6/30/2010 14:58
Surr: 4-Bromofluorobenzene	*105*			*77-129*	*%REC*	1	6/30/2010 14:58
Surr: Trifluorotoluene	*100*			*75-130*	*%REC*	1	6/30/2010 14:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: FB-2
Collection Date: 6/22/2010 08:30 AM

Work Order: 1006845
Lab ID: 1006845-14
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 19:42
Toluene	ND		0.00020	0.0010	mg/L	1	6/30/2010 19:42
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 19:42
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	6/30/2010 19:42
Surr: 4-Bromofluorobenzene	*99.2*			*77-129*	*%REC*	1	6/30/2010 19:42
Surr: Trifluorotoluene	*94.4*			*75-130*	*%REC*	1	6/30/2010 19:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: FB-3
Collection Date: 6/23/2010 09:30 AM

Work Order: 1006845
Lab ID: 1006845-15
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 00:02
Toluene	ND		0.00020	0.0010	mg/L	1	7/1/2010 00:02
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 00:02
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/1/2010 00:02
Surr: 4-Bromofluorobenzene	*104*			*77-129*	*%REC*	1	7/1/2010 00:02
Surr: Trifluorotoluene	*98.6*			*75-130*	*%REC*	1	7/1/2010 00:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: FB-4
Collection Date: 6/23/2010 09:30 AM

Work Order: 1006845
Lab ID: 1006845-16
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 00:22
Toluene	ND		0.00020	0.0010	mg/L	1	7/1/2010 00:22
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 00:22
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/1/2010 00:22
Surr: 4-Bromofluorobenzene	*104*			*77-129*	*%REC*	1	7/1/2010 00:22
Surr: Trifluorotoluene	*98.6*			*75-130*	*%REC*	1	7/1/2010 00:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: EB-1
Collection Date: 6/22/2010 08:30 AM

Work Order: 1006845
Lab ID: 1006845-17
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 20:02
Toluene	ND		0.00020	0.0010	mg/L	1	6/30/2010 20:02
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	6/30/2010 20:02
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	6/30/2010 20:02
Surr: 4-Bromofluorobenzene	*106*			*77-129*	*%REC*	1	6/30/2010 20:02
Surr: Trifluorotoluene	*101*			*75-130*	*%REC*	1	6/30/2010 20:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: EB-2
Collection Date: 6/23/2010 04:10 PM

Work Order: 1006845
Lab ID: 1006845-18
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 00:42
Toluene	ND		0.00020	0.0010	mg/L	1	7/1/2010 00:42
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 00:42
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/1/2010 00:42
Surr: 4-Bromofluorobenzene	*106*			*77-129*	*%REC*	1	7/1/2010 00:42
Surr: Trifluorotoluene	*99.5*			*75-130*	*%REC*	1	7/1/2010 00:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-6D
Collection Date: 6/24/2010 10:35 AM

Work Order: 1006845
Lab ID: 1006845-19
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 01:01
Toluene	ND		0.00020	0.0010	mg/L	1	7/1/2010 01:01
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/1/2010 01:01
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/1/2010 01:01
Surr: 4-Bromofluorobenzene	*107*			*77-129*	*%REC*	1	7/1/2010 01:01
Surr: Trifluorotoluene	*98.2*			*75-130*	*%REC*	1	7/1/2010 01:01
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0040	0.0500	mg/L	10	6/30/2010 00:15
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 21:10
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:10
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:10
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:10
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 21:10
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 21:10
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 21:10
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 21:10
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:10
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 21:10
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:10
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:10
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 21:10
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 21:10
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:10
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-6S
Collection Date: 6/24/2010 11:30 AM

Work Order: 1006845
Lab ID: 1006845-20
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX			Method: **SW8021B**				Analyst: **KKP**
Benzene	ND		0.0010	0.0050	mg/L	5	7/2/2010 10:45
Toluene	ND		0.0010	0.0050	mg/L	5	7/2/2010 10:45
Ethylbenzene	ND		0.0010	0.0050	mg/L	5	7/2/2010 10:45
Xylenes, Total	ND		0.0035	0.015	mg/L	5	7/2/2010 10:45
Surr: 4-Bromofluorobenzene	*95.3*			*77-129*	*%REC*	5	7/2/2010 10:45
Surr: Trifluorotoluene	*119*			*75-130*	*%REC*	5	7/2/2010 10:45
METALS			Method: **SW6020**		Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/30/2010 00:20
LOW-LEVEL PAHS			Method: **SW8270**		Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 21:31
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:31
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:31
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:31
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 21:31
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 21:31
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 21:31
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 21:31
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:31
Dibenz(a;h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 21:31
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:31
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:31
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 21:31
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 21:31
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:31
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-10
Collection Date: 6/24/2010 01:10 PM

Work Order: 1006845
Lab ID: 1006845-21
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX			Method: **SW8021B**				Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 17:02
Toluene	ND		0.00020	0.0010	mg/L	1	7/2/2010 17:02
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 17:02
Xylenes, Total	**0.0039**		**0.00070**	**0.0030**	**mg/L**	1	7/2/2010 17:02
Surr: 4-Bromofluorobenzene	*93.2*			*77-129*	*%REC*	1	7/2/2010 17:02
Surr: Trifluorotoluene	*96.0*			*75-130*	*%REC*	1	7/2/2010 17:02
METALS			Method: **SW6020**		Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/30/2010 00:25
LOW-LEVEL PAHS			Method: **SW8270**		Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	**0.00067**		**0.000090**	**0.00020**	**mg/L**	1	7/21/2010 21:52
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:52
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:52
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:52
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 21:52
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 21:52
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 21:52
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 21:52
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:52
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 21:52
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:52
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:52
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 21:52
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 21:52
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 21:52
Pyrene	**0.00046**		**0.000070**	**0.00020**	**mg/L**	1	7/21/2010 21:52

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: DUP-1
Collection Date: 6/24/2010 12:00 PM

Work Order: 1006845
Lab ID: 1006845-22
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX			Method: **SW8021B**				Analyst: **KKP**
Benzene	ND		0.0010	0.0050	mg/L	5	7/2/2010 12:00
Toluene	ND		0.0010	0.0050	mg/L	5	7/2/2010 12:00
Ethylbenzene	ND		0.0010	0.0050	mg/L	5	7/2/2010 12:00
Xylenes, Total	ND		0.0035	0.015	mg/L	5	7/2/2010 12:00
Surr: 4-Bromofluorobenzene	*93.7*			*77-129*	*%REC*	5	7/2/2010 12:00
Surr: Trifluorotoluene	*119*			*75-130*	*%REC*	5	7/2/2010 12:00
METALS			Method: **SW6020**		Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/30/2010 00:36
LOW-LEVEL PAHS			Method: **SW8270**		Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 22:13
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:13
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:13
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:13
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 22:13
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 22:13
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 22:13
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 22:13
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:13
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 22:13
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:13
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:13
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 22:13
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 22:13
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:13
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: Trip Blank
Collection Date: 6/24/2010

Work Order: 1006845
Lab ID: 1006845-23
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 12:19
Toluene	ND		0.00020	0.0010	mg/L	1	7/2/2010 12:19
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 12:19
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/2/2010 12:19
Surr: 4-Bromofluorobenzene	*93.3*			*77-129*	*%REC*	1	7/2/2010 12:19
Surr: Trifluorotoluene	*87.6*			*75-130*	*%REC*	1	7/2/2010 12:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: *30-Jul-10*

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
Sample ID: MW-3S
Collection Date: 6/23/2010 03:40 PM

Work Order: 1006845
Lab ID: 1006845-24
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
BTEX		Method: **SW8021B**					Analyst: **KKP**
Benzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 14:31
Toluene	ND		0.00020	0.0010	mg/L	1	7/2/2010 14:31
Ethylbenzene	ND		0.00020	0.0010	mg/L	1	7/2/2010 14:31
Xylenes, Total	ND		0.00070	0.0030	mg/L	1	7/2/2010 14:31
Surr: 4-Bromofluorobenzene	*94.3*			*77-129*	*%REC*	1	7/2/2010 14:31
Surr: Trifluorotoluene	*93.3*			*75-130*	*%REC*	1	7/2/2010 14:31
METALS		Method: **SW6020**			Prep: SW3010A / 6/28/10		Analyst: **ALR**
Lead	ND		0.0020	0.0250	mg/L	5	6/30/2010 00:41
LOW-LEVEL PAHS		Method: **SW8270**			Prep: SW3510B / 6/28/10		Analyst: **LG**
Acenaphthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 22:34
Acenaphthylene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:34
Anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:34
Benz(a)anthracene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:34
Benzo(a)pyrene	ND		0.000080	0.00020	mg/L	1	7/21/2010 22:34
Benzo(b)fluoranthene	ND		0.000090	0.00020	mg/L	1	7/21/2010 22:34
Benzo(g,h,i)perylene	ND		0.000090	0.00020	mg/L	1	7/21/2010 22:34
Benzo(k)fluoranthene	ND		0.00010	0.00020	mg/L	1	7/21/2010 22:34
Chrysene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:34
Dibenz(a,h)anthracene	ND		0.000080	0.00020	mg/L	1	7/21/2010 22:34
Fluoranthene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:34
Fluorene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:34
Indeno(1,2,3-cd)pyrene	ND		0.00010	0.00020	mg/L	1	7/21/2010 22:34
Naphthalene	ND		0.00010	0.00020	mg/L	1	7/21/2010 22:34
Phenanthrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:34
Pyrene	ND		0.000070	0.00020	mg/L	1	7/21/2010 22:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Laboratory Group

Date: 30-Jul-10

WorkOrder: 1006845
Test Code: 8270_LL_PAH_W
Test Number: SW8270
Test Name: Low-Level PAHs

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** µg/L

Type	Analyte	CAS	MDL	Unadjusted MQL
A	Acenaphthene	83-32-9	0.09	0.2
A	Acenaphthylene	208-96-8	0.07	0.2
A	Anthracene	120-12-7	0.07	0.2
A	Benz(a)anthracene	56-55-3	0.07	0.2
A	Benzo(a)pyrene	50-32-8	0.08	0.2
A	Benzo(b)fluoranthene	205-99-2	0.09	0.2
A	Benzo(g,h,i)perylene	191-24-2	0.09	0.2
A	Benzo(k)fluoranthene	207-08-9	0.1	0.2
A	Chrysene	218-01-9	0.07	0.2
A	Dibenz(a,h)anthracene	53-70-3	0.08	0.2
A	Fluoranthene	206-44-0	0.07	0.2
A	Fluorene	86-73-7	0.07	0.2
A	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	0.2
A	Naphthalene	91-20-3	0.1	0.2
A	Phenanthrene	85-01-8	0.07	0.2
A	Pyrene	129-00-0	0.07	0.2

WorkOrder: 1006845
Test Code: BTEX_W
Test Number: SW8021B
Test Name: BTEX

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	MDL	Unadjusted MQL
A	Benzene	71-43-2	0.0002	0.001
A	Ethylbenzene	100-41-4	0.0002	0.001
A	Toluene	108-88-3	0.0002	0.001
M	Xylenes, Total	1330-20-7	0.0007	0.003
S	Surr: 4-Bromofluorobenzene	460-00-4	0.0002	0.001
S	Surr: Trifluorotoluene	98-08-8	0.0002	0.001

ALS Laboratory Group

Date: 30-Jul-10

WorkOrder: 1006845
Test Code: ICP_TW
Test Number: SW6020
Test Name: Metals

METHOD DETECTION / REPORTING LIMITS

Matrix: Aqueous **Units:** mg/L

Type	Analyte	CAS	MDL	Unadjusted MQL
A	Lead	7439-92-1	0.0004	0.005

ALS Laboratory Group

Date: 30-Jul-10

Client: ERM Southwest, Inc.

QC BATCH REPORT

Work Order: 1006845

Project: Huntsman - 0102010

Batch ID: **R93476** Instrument ID **BTEX3** Method: **SW8021B**

MBLK Sample ID: **BBLKW1-063010-R93476** Units: **µg/L** Analysis Date: **6/30/2010 10:04 AM**

Client ID: Run ID: **BTEX3_100630A** SeqNo: **2015185** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 4-Bromofluorobenzene	*31.92*	1.0	*30*	0	*106*	*77-129*	0			
Surr: Trifluorotoluene	*30.39*	1.0	*30*	0	*101*	*75-130*	0			

LCS Sample ID: **BLCSW1-063010-R93476** Units: **µg/L** Analysis Date: **6/30/2010 10:24 AM**

Client ID: Run ID: **BTEX3_100630A** SeqNo: **2015187** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20	1.0	20	0	100	77-126	0			
Toluene	19.94	1.0	20	0	99.7	80-124	0			
Ethylbenzene	19.47	1.0	20	0	97.3	76-125	0			
Xylenes, Total	58.6	3.0	60	0	97.7	79-124	0			
Surr: 4-Bromofluorobenzene	*30.61*	1.0	*30*	0	*102*	*77-129*	0			
Surr: Trifluorotoluene	*28.93*	1.0	*30*	0	*96.4*	*75-130*	0			

MS Sample ID: **1006958-04AMS** Units: **µg/L** Analysis Date: **6/30/2010 04:54 PM**

Client ID: Run ID: **BTEX3_100630A** SeqNo: **2015205** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.24	1.0	20	0	106	77-126	0			
Toluene	21.44	1.0	20	0	107	80-124	0			
Ethylbenzene	20.1	1.0	20	0	101	76-125	0			
Xylenes, Total	60.97	3.0	60	0	102	79-124	0			
Surr: 4-Bromofluorobenzene	*32.69*	1.0	*30*	0	*109*	*77-129*	0			
Surr: Trifluorotoluene	*31.15*	1.0	*30*	0	*104*	*75-130*	0			

MSD Sample ID: **1006958-04AMSD** Units: **µg/L** Analysis Date: **6/30/2010 05:14 PM**

Client ID: Run ID: **BTEX3_100630A** SeqNo: **2015206** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.64	1.0	20	0	108	77-126	21.24	1.87	20	
Toluene	21.49	1.0	20	0	107	80-124	21.44	0.253	20	
Ethylbenzene	20.89	1.0	20	0	104	76-125	20.1	3.83	20	
Xylenes, Total	62.6	3.0	60	0	104	79-124	60.97	2.63	20	
Surr: 4-Bromofluorobenzene	*32.09*	1.0	*30*	0	*107*	*77-129*	32.69	*1.85*	*20*	
Surr: Trifluorotoluene	*30.06*	1.0	*30*	0	*100*	*75-130*	31.15	*3.55*	*20*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1006845
Project: Huntsman - 0102010

QC BATCH REPORT

Batch ID: **R93476** Instrument ID **BTEX3** Method: **SW8021B**

The following samples were analyzed in this batch:

1006845-01A	1006845-02A	1006845-03A
1006845-04A	1006845-05A	1006845-06A
1006845-13A	1006845-14A	1006845-17A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1006845
Project: Huntsman - 0102010

QC BATCH REPORT

Batch ID: **R93479** Instrument ID **BTEX3** Method: **SW8021B**

MBLK Sample ID: **BBLKW2-062210-R93479** Units: **µg/L** Analysis Date: **6/30/2010 09:02 PM**
Client ID: Run ID: **BTEX3_100630B** SeqNo: **2015275** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 4-Bromofluorobenzene	*30.47*	1.0	*30*	0	*102*	*77-129*	0			
Surr: Trifluorotoluene	*28.66*	1.0	*30*	0	*95.5*	*75-130*	0			

LCS Sample ID: **BLCSW2-062210-R93479** Units: **µg/L** Analysis Date: **6/30/2010 08:42 PM**
Client ID: Run ID: **BTEX3_100630B** SeqNo: **2015246** Prep Date: DF: 1

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.31	1.0	20	0	102	77-126	0			
Toluene	20.44	1.0	20	0	102	80-124	0			
Ethylbenzene	20.53	1.0	20	0	103	76-125	0			
Xylenes, Total	60.77	3.0	60	0	101	79-124	0			
Surr: 4-Bromofluorobenzene	*32.59*	1.0	*30*	0	*109*	*77-129*	0			
Surr: Trifluorotoluene	*30.01*	1.0	*30*	0	*100*	*75-130*	0			

MS Sample ID: **1006845-20AMS** Units: **µg/L** Analysis Date: **7/1/2010 01:41 AM**
Client ID: **MW-6S** Run ID: **BTEX3_100630B** SeqNo: **2015261** Prep Date: DF: **250**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	4837	250	5000	0	96.7	77-126	0			
Toluene	4825	250	5000	0	96.5	80-124	0			
Ethylbenzene	4836	250	5000	0	96.7	76-125	0			
Xylenes, Total	14300	750	15000	0	95.3	79-124	0			
Surr: 4-Bromofluorobenzene	*7775*	250	*7500*	0	*104*	*77-129*	0			
Surr: Trifluorotoluene	*7180*	250	*7500*	0	*95.7*	*75-130*	0			

MSD Sample ID: **1006845-20AMSD** Units: **µg/L** Analysis Date: **7/1/2010 02:01 AM**
Client ID: **MW-6S** Run ID: **BTEX3_100630B** SeqNo: **2015262** Prep Date: DF: **250**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	4994	250	5000	0	99.9	77-126	4837	3.19	20	
Toluene	5078	250	5000	0	102	80-124	4825	5.09	20	
Ethylbenzene	5012	250	5000	0	100	76-125	4836	3.58	20	
Xylenes, Total	14820	750	15000	0	98.8	79-124	14300	3.6	20	
Surr: 4-Bromofluorobenzene	*8189*	250	*7500*	0	*109*	*77-129*	*7775*	*5.19*	*20*	
Surr: Trifluorotoluene	*7735*	250	*7500*	0	*103*	*75-130*	7180	*7.45*	*20*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1006845
Project: Huntsman - 0102010

QC BATCH REPORT

Batch ID: **R93479** Instrument ID **BTEX3** Method: **SW8021B**

The following samples were analyzed in this batch:

1006845-07A	1006845-08A	1006845-09A
1006845-10A	1006845-11A	1006845-12A
1006845-15A	1006845-16A	1006845-18A
1006845-19A	1006845-20A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1006845
Project: Huntsman - 0102010

QC BATCH REPORT

Batch ID: **R93510** Instrument ID **BTEX1** Method: **SW8021B**

MBLK Sample ID: **BBLKW1-070110-R93510** Units: **µg/L** Analysis Date: **7/1/2010 11:16 AM**
Client ID: Run ID: **BTEX1_100701A** SeqNo: **2015947** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 4-Bromofluorobenzene	*28.32*	1.0	*30*	0	*94.4*	*77-129*	0			
Surr: Trifluorotoluene	*24.78*	1.0	*30*	0	*82.6*	*75-130*	0			

LCS Sample ID: **BLCSW1-070110-R93510** Units: **µg/L** Analysis Date: **7/1/2010 10:38 AM**
Client ID: Run ID: **BTEX1_100701A** SeqNo: **2015944** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.8	1.0	20	0	99	77-126	0			
Toluene	19.92	1.0	20	0	99.6	80-124	0			
Ethylbenzene	19.9	1.0	20	0	99.5	76-125	0			
Xylenes, Total	58.54	3.0	60	0	97.6	79-124	0			
Surr: 4-Bromofluorobenzene	*29.27*	1.0	*30*	0	*97.6*	*77-129*	0			
Surr: Trifluorotoluene	*25.69*	1.0	*30*	0	*85.6*	*75-130*	0			

MS Sample ID: **1006835-03AMS** Units: **µg/L** Analysis Date: **7/1/2010 03:39 PM**
Client ID: Run ID: **BTEX1_100701A** SeqNo: **2015961** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.57	1.0	20	0	108	77-126	0			
Toluene	21.16	1.0	20	0	106	80-124	0			
Ethylbenzene	21.35	1.0	20	0	107	76-125	0			
Xylenes, Total	61.06	3.0	60	0	102	79-124	0			
Surr: 4-Bromofluorobenzene	*28.07*	1.0	*30*	0	*93.6*	*77-129*	0			
Surr: Trifluorotoluene	*25.17*	1.0	*30*	0	*83.9*	*75-130*	0			

MSD Sample ID: **1006835-03AMSD** Units: **µg/L** Analysis Date: **7/1/2010 03:59 PM**
Client ID: Run ID: **BTEX1_100701A** SeqNo: **2015962** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.61	1.0	20	0	113	77-126	21.57	4.71	20	
Toluene	21.99	1.0	20	0	110	80-124	21.16	3.86	20	
Ethylbenzene	21.96	1.0	20	0	110	76-125	21.35	2.79	20	
Xylenes, Total	63.46	3.0	60	0	106	79-124	61.06	3.86	20	
Surr: 4-Bromofluorobenzene	*28.98*	1.0	*30*	0	*96.6*	*77-129*	28.07	*3.18*	*20*	
Surr: Trifluorotoluene	*25.55*	1.0	*30*	0	*85.2*	*75-130*	25.17	*1.5*	*20*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1006845
Project: Huntsman - 0102010

QC BATCH REPORT

Batch ID: **R93510** Instrument ID **BTEX1** Method: **SW8021B**

The following samples were analyzed in this batch:

1006845-01A	1006845-02A	1006845-03A
1006845-04A	1006845-06A	1006845-07A
1006845-08A	1006845-09A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1006845
Project: Huntsman - 0102010

QC BATCH REPORT

Batch ID: **R93517** Instrument ID **BTEX1** Method: **SW8021B**

MBLK Sample ID: **MEOHW1-070210-R93517** Units: **µg/L** Analysis Date: **7/2/2010 10:07 AM**
Client ID: Run ID: **BTEX1_100702A** SeqNo: **2016159** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 4-Bromofluorobenzene	*28.62*	1.0	*30*	0	*95.4*	*77-129*	0			
Surr: Trifluorotoluene	*29.46*	1.0	*30*	0	*98.2*	*75-130*	0			

MBLK Sample ID: **BBLKW1-070210-R93517** Units: **µg/L** Analysis Date: **7/2/2010 10:26 AM**
Client ID: Run ID: **BTEX1_100702A** SeqNo: **2016160** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 4-Bromofluorobenzene	*27.99*	1.0	*30*	0	*93.3*	*77-129*	0			
Surr: Trifluorotoluene	*27.57*	1.0	*30*	0	*91.9*	*75-130*	0			

LCS Sample ID: **BLCSW1-070210-R93517** Units: **µg/L** Analysis Date: **7/2/2010 09:48 AM**
Client ID: Run ID: **BTEX1_100702A** SeqNo: **2016158** Prep Date: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.17	1.0	20	0	95.8	77-126	0			
Toluene	19.99	1.0	20	0	99.9	80-124	0			
Ethylbenzene	19.91	1.0	20	0	99.6	76-125	0			
Xylenes, Total	58.57	3.0	60	0	97.6	79-124	0			
Surr: 4-Bromofluorobenzene	*28.49*	1.0	*30*	0	*95*	*77-129*	0			
Surr: Trifluorotoluene	*28.45*	1.0	*30*	0	*94.8*	*75-130*	0			

MS Sample ID: **1006845-20AMS** Units: **µg/L** Analysis Date: **7/2/2010 11:04 AM**
Client ID: **MW-6S** Run ID: **BTEX1_100702A** SeqNo: **2016162** Prep Date: DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	97.87	5.0	100	0	97.9	77-126	0			
Toluene	99.31	5.0	100	0	99.3	80-124	0			
Ethylbenzene	96.16	5.0	100	0	96.2	76-125	0			
Xylenes, Total	292.9	15	300	5.007	96	79-124	0			
Surr: 4-Bromofluorobenzene	*147.7*	5.0	*150*	0	*98.4*	*77-129*	0			
Surr: Trifluorotoluene	*177.8*	5.0	*150*	0	*119*	*75-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1006845
Project: Huntsman - 0102010

QC BATCH REPORT

Batch ID: **R93517** Instrument ID **BTEX1** Method: **SW8021B**

MSD Sample ID: **1006845-20AMSD** Units: **µg/L** Analysis Date: **7/2/2010 11:23 AM**

Client ID: **MW-6S** Run ID: **BTEX1_100702A** SeqNo: **2016163** Prep Date: DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	97.12	5.0	100	0	97.1	77-126	97.87	0.767	20	
Toluene	98.08	5.0	100	0	98.1	80-124	99.31	1.25	20	
Ethylbenzene	96	5.0	100	0	96	76-125	96.16	0.165	20	
Xylenes, Total	292.4	15	300	5.007	95.8	79-124	292.9	0.17	20	
Surr: 4-Bromofluorobenzene	*139.1*	5.0	*150*	0	*92.8*	*77-129*	147.7	*5.93*	*20*	
Surr: Trifluorotoluene	*174.1*	5.0	*150*	0	*116*	*75-130*	177.8	*2.12*	*20*	

The following samples were analyzed in this batch:

1006845-01A	1006845-02A	1006845-03A
1006845-04A	1006845-06A	1006845-07A
1006845-20A	1006845-21A	1006845-22A
1006845-23A	1006845-24A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1006845
Project: Huntsman - 0102010

QC BATCH REPORT

Batch ID: **44080** Instrument ID **ICPMS03** Method: **SW6020**

MBLK Sample ID: **MBLKW1-062810-44080** Units: **mg/L** Analysis Date: **6/28/2010 09:39 PM**
Client ID: Run ID: **ICPMS03_100628A** SeqNo: **2010760** Prep Date: **6/28/2010** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.0005398	0.0050								J

LCS Sample ID: **MLCSW1-062810-44080** Units: **mg/L** Analysis Date: **6/28/2010 09:44 PM**
Client ID: Run ID: **ICPMS03_100628A** SeqNo: **2010761** Prep Date: **6/28/2010** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.04874	0.0050	0.05	0	97.5	80-120	0			

MS Sample ID: **1006845-10BMS** Units: **mg/L** Analysis Date: **6/29/2010 09:13 PM**
Client ID: **MW-3D** Run ID: **ICPMS03_100629A** SeqNo: **2012293** Prep Date: **6/28/2010** DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.05229	0.050	0.05	0.004229	96.1	80-120	0			

MSD Sample ID: **1006845-10BMSD** Units: **mg/L** Analysis Date: **6/29/2010 09:18 PM**
Client ID: **MW-3D** Run ID: **ICPMS03_100629A** SeqNo: **2012294** Prep Date: **6/28/2010** DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.05286	0.050	0.05	0.004229	97.3	80-120	0.05229	1.08	15	

DUP Sample ID: **1006845-10BDUP** Units: **mg/L** Analysis Date: **6/29/2010 08:52 PM**
Client ID: **MW-3D** Run ID: **ICPMS03_100629A** SeqNo: **2012289** Prep Date: **6/28/2010** DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	ND	0.050	0	0	0	0-0	0.004229	0	25	

The following samples were analyzed in this batch:

1006845-01B	1006845-02B	1006845-03B
1006845-04B	1006845-05B	1006845-06B
1006845-07B	1006845-08B	1006845-09B
1006845-10B	1006845-11B	1006845-12B
1006845-19B	1006845-20B	1006845-21B
1006845-22B	1006845-24B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ERM Southwest, Inc.
Work Order: 1006845
Project: Huntsman - 0102010

QC BATCH REPORT

Batch ID: **44085** Instrument ID **SV-2** Method: **SW8270**

MBLK Sample ID: **PBLKW1-100628-44085** Units: **µg/L** Analysis Date: **7/21/2010 04:39 PM**

Client ID: Run ID: **SV-2_100721A** SeqNo: **2036650** Prep Date: **6/28/2010** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	0.20	0	0	0	0-0	0			
Acenaphthylene	ND	0.20	0	0	0	0-0	0			
Anthracene	ND	0.20	0	0	0	0-0	0			
Benz(a)anthracene	ND	0.20	0	0	0	0-0	0			
Benzo(a)pyrene	ND	0.20	0	0	0	0-0	0			
Benzo(b)fluoranthene	ND	0.20	0	0	0	0-0	0			
Benzo(g,h,i)perylene	ND	0.20	0	0	0	0-0	0			
Benzo(k)fluoranthene	ND	0.20	0	0	0	0-0	0			
Chrysene	ND	0.20	0	0	0	0-0	0			
Dibenz(a,h)anthracene	ND	0.20	0	0	0	0-0	0			
Fluoranthene	ND	0.20	0	0	0	0-0	0			
Fluorene	ND	0.20	0	0	0	0-0	0			
Indeno(1,2,3-cd)pyrene	ND	0.20	0	0	0	0-0	0			
Naphthalene	ND	0.20	0	0	0	0-0	0			
Phenanthrene	ND	0.20	0	0	0	0-0	0			
Pyrene	ND	0.20	0	0	0	0-0	0			

The following samples were analyzed in this batch:

1006845-01C	1006845-02C	1006845-03C
1006845-04C	1006845-05C	1006845-06C
1006845-07C	1006845-08C	1006845-09C
1006845-10C	1006845-11C	1006845-12C
1006845-19C	1006845-20C	1006845-21C
1006845-22C	1006845-24C	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

Date: 30-Jul-10

Client: ERM Southwest, Inc.
Project: Huntsman - 0102010
WorkOrder: **1006845**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

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Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 1002645

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Huntsman	A	BTEX (8021)
Work Order		Project Number	0102010	B	Metals (6020/7000) Pb
Company Name	ERM Southwest, Inc.	Bill To Company	ERM Southwest, Inc.	C	Pesticides (8081)
Send Report To	Brad Stokes	Invoice Attn	Brad Stokes	D	
Address	442 Bermuda	Address	442 Bermuda	E	
				F	
City/State/Zip	Corpus Christi, TX 78411	City/State/Zip	Corpus Christi, TX 78411	G	
Phone	(361) 737-9203	Phone	(361) 737-9203	H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-5	6/21/10	1445	WATER	HCl	3	X										
2					HNO_3	1		X									
3					8	2			X								
4	MW-8	6/22/10	0930	WATER	HCl	3	X										
5					HNO_3	1		X									
6					8	2			X								
7	MW-11	6/22/10	1050	WATER	HCl	3	X										
8					HNO_3	1		X									
9					8	2			X								
10																	

Sampler(s) Please Print & Sign: Randolph Ottland / RANDOLPH OTTLAND

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) 1 Std. 10 Wk Days | 5 Wk Days | 2 Wk Days | 1 Day | 24 Hour | Other

Results Due Date:

Relinquished by: Randolph Ottland | Date: 6/24/10 | Time: 1700 | Received by:

Relinquished by: | Date: | Time: | Received by (Laboratory): | Date: 6/25/10 | Time: 0800

Notes: 10 Work Days TAT.

Logged by (Laboratory): | Date: | Time: | Checked by (Laboratory):

Cooler ID | Cooler Temp.

QC Package: (Check One Box Below)
- ☐ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other / EDD
- ☑ TRRP CheckList
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
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ALS Project Manager: | ALS Work Order #: 1006645

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	Same P.I	Project Name	Same P.I	A	BTEX (8021)
Work Order		Project Number		B	METALS (6020/7470) Pb
Company Name		Bill To Company		C	PESTICIDES (8081)
Send Report To		Invoice Attn		D	
Address		Address		E	
				F	
City/State/Zip		City/State/Zip		G	
Phone		Phone		H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-17	6/22/10	12:10	WATER	HCl	3	X										
2	↓	↓	↓	↓	HNO_3	1		X									
3	↓	↓	↓	↓	8	2			X								
4	MW-14	6/22/10	1445	WATER	HCl	3	X										
5	↓	↓	↓	↓	HNO_3	1		X									
6	↓	↓	↓	↓	8	2			X								
7	MW-7	6/22/10	1605	WATER	HCl	3	X										
8	↓	↓	↓	↓	HNO_3	1		X									
9	↓	↓	↓	↓	8	2			X								
10																	

Sampler(s) Please Print & Sign: Randolph Outlaw / RANDOLPH OUTLAW

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Randolph Outlaw	6/24/10	1700	
Relinquished by:	Date:	Time:	Received by (Laboratory):
			RH 6/25/10 0900
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ Other
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 1006895

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Huntsman	A	BTEX (8021)
Work Order		Project Number		B	Metals (6020/7000) Pb
Company Name	ERM Southwest, Inc.	Bill To Company	ERM Southwest, Inc.	C	Pesticides (8081)
Send Report To	Brad Stokes	Invoice Attn	Brad Stokes	D	
Address	442 Bermuda	Address	442 Bermuda	E	
				F	
City/State/Zip	Corpus Christi, TX 78411	City/State/Zip	Corpus Christi, TX 78411	G	
Phone	(361) 737-9203	Phone	(361) 737-9203	H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-4	6/23/10	0945	WATER	HCl	3	X										
2	↓	↓	↓	↓	HNO_3	1		X									
3	↓	↓	↓	↓	8	2			X								
4	MW-15	6/23/10	11:10	WATER	HCl	3	X										
5	↓	↓	↓	↓	HNO_3	1		X									
6	↓	↓	↓	↓	8	2			X								
7	MW-9S	6/23/10	12:25	WATER	HCl	3	X										
8	↓	↓	↓	↓	HNO_3	1		X									
9	↓	↓	↓	↓	8	2			X								
10																	

Sampler(s) Please Print & Sign: Ronald Patterson / Ronald Patterson | Shipment Method: FEDEX | Required Turnaround Time: (Check Box) 1 Std 10 WK Days; 5 WK Days; 2 WK Days; 24 Hour; Other | Results Due Date:

Relinquished by: Ronald Patterson | Date: 6/24/10 | Time: 1700 | Received by: | Notes: 10 Work Days TAT.

Relinquished by: | Date: | Time: | Received by (Laboratory): 6/25/10 0900

Logged by (Laboratory): | Date: | Time: | Checked by (Laboratory):

Cooler ID | Cooler Temp

QC Package: (Check One Box Below)
- ☐ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other / EDD
- ☑ TRRP CheckList
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
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Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 1006845

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Huntsman	A	BTEX (8021)
Work Order		Project Number		B	Metals (6020/7000) Pb
Company Name	ERM Southwest, Inc.	Bill To Company	ERM Southwest, Inc.	C	Pesticides (8081)
Send Report To	Brad Stokes	Invoice Attn	Brad Stokes	D	
Address	442 Bermuda	Address	442 Bermuda	E	
				F	
City/State/Zip	Corpus Christi, TX 78411	City/State/Zip	Corpus Christi, TX 78411	G	
Phone	(361) 737-9203	Phone	(361) 737-9203	H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-3D	6/23/10	1440	Water	HCl	3	X										
2	↓	↓	↓	↓	HNO_3	1		X									
3	↓	↓	↓	↓	8	2			X								
4	MW-3S	6/23/10	1540	Water	HCl	3	X										
5	↓	↓	↓	↓	HNO_3	1		X									
6	↓	↓	↓	↓	8	2			X								
7	River-Upstream	6/23/10	1630	Water	HCl	3	X										
8	↓	↓	↓	↓	HNO_3	1		X									
9	↓	↓	↓	↓	8	2			X								
10																	

Sampler(s) Please Print & Sign: Randall Orduna / Randall Orduna | Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ Std 10 W/C Days ☐ 5 W/C Days ☐ 2 W/C Days ☐ 24 hour ☐ Other | Results Due Date:

Relinquished by: Randall Orduna | Date: 6/24/10 | Time: 1200 | Received by:

Notes: 10 Work Days TAT.

Relinquished by: | Date: | Time: | Received by (Laboratory): | Date: 6/25/10 | Time: 0900

Cooler ID | Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC ☑ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other / EDD

Logged by (Laboratory): | Date: | Time: | Checked by (Laboratory):

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 1100695

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Huntsman	A	BTEX (8021)
Work Order		Project Number		B	Metals (6020/7000) Pb
Company Name	ERM Southwest, Inc.	Bill To Company	ERM Southwest, Inc.	C	Pesticides (8081)
Send Report To	Brad Stokes	Invoice Attn	Brad Stokes	D	
Address	442 Bermuda	Address	442 Bermuda	E	
				F	
City/State/Zip	Corpus Christi, TX 78411	City/State/Zip	Corpus Christi, TX 78411	G	
Phone	(361) 737-9203	Phone	(361) 737-9203	H	
Fax		Fax			
e-Mail Address		e-Mail Address		J	

No	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	J	Hold
1	RIVER-DOWNSTREAM	6/23/10	1700	WATER	HCl	3	X									
2					HNO_3	1		X								
3					8	2			X							
4	FB-1	6/21/10	1315	WATER	HCl	3	X									
5	FB-2	6/22/10	0830	WATER	HCl	3	X									
6	FB-3	6/23/10	0930	WATER	HCl	3	X									
7	FB-4	6/24/10	0930	WATER	HCl	3	X									
8	FB-1	6/22/10	0830	WATER	HCl	3	X									
9	FB-2	6/23/10	1610	WATER	HCl	3	X									
10																

Sampler(s) Please Print & Sign: Randolph Gilleland / RANDOLPH GILLELAND

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) Other | Std. 10 WK Days | 5 WK Days | 3 WK Days | 24 Hour

Results Due Date:

Relinquished by: Randolph Gilleland | Date: 6/24/10 | Time: 1700 | Received by:

Notes: 10 Work Days TAT.

Relinquished by: | Date: | Time: | Received by (Laboratory): | Date: 6/25/10 | Time: 0800

Logged by (Laboratory): | Date: | Time: | Checked by (Laboratory):

Cooler ID | Cooler Temp:

QC Package: (Check One Box Below)
- ☐ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other / EDD
- ☑ TRRP CheckList
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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ALS Project Manager:
ALS Work Order #: 1006845

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	Same P. 1	Project Name	Same P. 1	A	BTEX (8021)
Work Order		Project Number		B	METALS (6020/7000) Pb
Company Name		Bill To Company		C	PESTICIDES (8081)
Send Report To		Invoice Attn		D	
Address		Address		E	
				F	
City/State/Zip		City/State/Zip		G	
Phone		Phone		H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-6D	6/24/10	1035	WATER	HCl	3	X										
2	↓	↓	↓	↓	HNO3	1		X									
3					8	2			X								
4	MW-6S	6/24/10	1130	WATER	HCl	3	X										
5	↓	↓	↓	↓	HNO3	1		X									
6					8	2			X								
7	MW-6S MS/MSD	6/24/10	1130	WATER	HCl	3	X										
8					HNO3	1		X									
9					8	2			X								
10																	

Sampler(s) Please Print & Sign: Randolph Ortiz [signature] RANDOLPH ORTIZ

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) ☐ Other ____ ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by: [signature] Date: 6/24/10 Time: 1700 Received by:

Notes:

Relinquished by: Date: Time: Received by (Laboratory): BH 6/25/10 1800

Cooler ID | Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other ____

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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ALS Project Manager: | ALS Work Order #: 1006645

Customer Information

Purchase Order	Same P.1
Work Order	
Company Name	
Send Report To	
Address	
City/State/Zip	
Phone	
Fax	
e-Mail Address	

Project Information

Project Name	Same P.1
Project Number	
Bill To Company	
Invoice Attn	
Address	
City/State/Zip	
Phone	
Fax	
e-Mail Address	

Parameter/Method Request for Analysis

A: BTEX (8021)
B: METALS (6020/7000) Pb
C: PESTICIDES (8081)
D:
E:
F:
G:
H:
J:

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-10	6/24/10	1310	WATER	HCl	3	X					(FORMER PRODUCTION WELL)					
2					HNO_3	1		X									
3					8	2			X								
4	DUP-1	6/24/10	1200	WATER	HCl	3	X										
5					HNO_3	1		X									
6					8	2			X								
7	TRIP BLANK			WATER	HCl	2	X										
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Randall Cotton / Kimberly Cotton

Shipment Method: FEDEX

Required Turnaround Time: (Check Box) ☐ Other ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by: Kimberly Cotton | Date: 6/24/10 | Time: 1700 | Received by:

Relinquished by: | Date: | Time: | Received by (Laboratory): 6/25/10 0900

Notes:

Logged by (Laboratory): | Date: | Time: | Checked by (Laboratory):

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☐ Level II Std QC
☐ Level III Std QC/Raw Date
☐ Level IV SW846/CLP
☐ Other
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse. The C[illegible] Cus[illegible] a leg[illegible]men[illegible] form[illegible] must [illegible]pleted[illegible]rately[illegible]

ALS Laboratory Group

Sample Receipt Checklist

Client Name: **ERMSW-CC** Date/Time Received: **25-Jun-10 09:00**

Work Order: **1006845** Received by: **RDH**

Checklist completed by *Robert D. Harris* eSignature 25-Jun-10 Date Reviewed by: *Hector Coronado* eSignature 28-Jun-10 Date

Matrices: waters
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☐	No ☑	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.1c,2.7c,3.2c,2.9c	002	
Cooler(s)/Kit(s):	3536,3242,9627,3416		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes: No sample bottles provided for MS/MSD as indicated on COC. Missed sample MW-3S on COC; logged in at end of WO.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Label 1 of 4

From: Origin ID: ELPA (915) 775-3202
ERM SW
ERM-SW
150 Texaco RD

El Paso, TX 79905

J102B1005250225

Ship Date: 24JUN10
ActWgt: 30.0 LB
CAD: 5919001/INET3060

Delivery Address Bar Code

Ref # 0102010
Invoice #
PO #
Dept #

SHIP TO: (281) 530-5656 BILL SENDER
Lora Terrill
ALS Laboratory Group
10450 Stancliff Rd
STE 210
Houston, TX 77099

1 of 4

TRK# 0201 7987 9303 9380

MASTER

FRI - 25 JUN A2
PRIORITY OVERNIGHT

77099
TX-US
IAH

AB JGQA

FedEx Ship Manager - Print Your Label(s) Page 1 of 1

Label 4 of 4

From: Origin ID: ELPA (915) 775-3202
ERM SW
ERM-SW
150 Texaco RD

El Paso, TX 79905

J102D1005250225

Ship Date: 24JUN10
ActWgt: 30.0 LB
CAD: 5919001/INET3060

Delivery Address Bar Code

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PO #
Dept #

SHIP TO: (281) 530-5656 BILL SENDER
Lora Terrill
ALS Laboratory Group
10450 Stancliff Rd
STE 210
Houston, TX 77099

4 of 4

MPS# 0263 7987 9303 9472

Mstr# 7987 9303 9380 0201

FRI - 25 JUN A2
PRIORITY OVERNIGHT

77099
TX-US
IAH

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1006815

From: Origin ID: ELPA (915) 775-3202
ERM SW
ERM-SW
150 Texaco RD

El Paso, TX 79905

FedEx Express

Ship Date: 24JUN10
ActWgt: 30.0 LB
CAD: 5919001/INET3060

Label

Delivery Address Bar Code

Ref # 0102010
Invoice #
PO #
Dept #

SHIP TO: (281) 530-5656
Lora Terrill
ALS Laboratory
10450 Stancliff
STE 210
Houston, TX

3 of 4

MPS# 0263 7987 9303 9450
Mstr# 7987 9303 9380 0201

FRI - 25 JUN A2
PRIORITY OVERNIGHT

77099
TX-US
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AB JGQA

Label 2 of 4

From: Origin ID: ELPA (915) 775-3202
ERM SW
ERM-SW
150 Texaco RD

El Paso, TX 79905

FedEx Express

J10210005250225

Ship Date: 24JUN10
ActWgt: 30.0 LB
CAD: 5919001/INET3060

Delivery Address Bar Code

SHIP TO: (281) 530-5656 BILL SENDER
Lora Terrill
ALS Laboratory Group
10450 Stancliff Rd
STE 210
Houston, TX 77099

Ref # 0102010
Invoice #
PO #
Dept #

2 of 4

MPS# 0263 7987 9303 9428
Mstr# 7987 9303 9380 0201

FRI - 25 JUN A2
PRIORITY OVERNIGHT

77099
TX-US
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